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DATA FROM THE COMMERCIAL FISHERY FOR LAKE WHITEFISH, Coregonus clupeaformis (Mitchill), ON GREAT SLAVE LAKE, NORTHWEST TERRITORIES, 1988, 1989 AND 1990

by

G. Low and C.J. Read

Central and Arctic Region

Department of Fisheries and Oceans

Winnipeg, Manitoba R3T 2N6

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ABSTRACT

Low, G. and C.J. Read. 1993. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1988, 1989 and 1990. Can. Data Rep. Fish. Aquat. Sci. £38: v + 54 p.

Data from the fish plant sampling program and fishery observations on the Great Slave Lake are presented. Production figures for whitefish and other species are shown. A total of 6 681 lake whitefish were sampled for length, weight and age. 5 151 nets (468 741 metres) were observed for catch and effort during the fishery observation program.

Key words: catch composition; catch/effort; commercial fishing; fishery management; monitoring.

RESUME

Low, G. and C.J. Read. 1993. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1988, 1989 and 1990. Can. Data Rep. Fish. Aquat. Sci. 898: v + 54 p.

Le rapport présente des données sur le programme d'échantillonnage a l'usine de transformation du poisson et sur les observations des pèches commerciales dans le Grand lac des Esclaves. On y donne les chiffres de production pour la corégone et d'autres espèces. Les données sur l'age, la longueur et le poids ont été recueillies a partir d'un échantillon de 6 681 grands corégones. Le programme d'observation des pèches commerciales d'hiver a été fait sur 5 151 filets (468 741 metres) et portait sur les prises et l'effort.

Mots-clés: composition des prises; prise/effort; pèche commerciale; gestion des pèches; contrôle.

INTRODUCTION

Commercial fishing first began on Great Slave Lake in 1945. Since then the fishery has been monitored annually for total catch; however, few studies were conducted on the effects of exploitation on the stocks of the commercial species (Rawson 1951, 1953a; Keleher 1972; Kennedy 1956) until the 1970's.

In 1971, the Department of Fisheries began a long term stock assessment and monitoring program designed to collect information considered essential for the sound management of the Great Slave Lake commercial fishery. These programs are consistent with the recommendation of the Great Slave Lake Working Party (1969) outlined in Roberge et al. (1982).

In order to meet these objectives, a threecomponent field study was implemented including fish plant sampling, fishery observations and experimental gillnetting. Results of this work for the years 1972 to 1987 have been described by Bond (1974a, b, 1975a, b), Bond and Turnbull (1973), Moshenko et al. (1978, 1981), Moshenko and Low (1978a, b, 1979, 1980) Roberge et al. (1982, 1984), Low and Read (1987) and Low et al. (1989).

Two components, fish plant sampling and fishery observations, were carried out during these three years. This report summarizes, in tabular form the data gathered from each of these two components.

STUDY AREA

Great Slave Lake lies in the southwest corner of the District of Mackenzie, Northwest Territories (Fig. 1). It is the fifth largest lake in North America, having a surface area of 27 195 km² and a drainage area of 985 300 km². Stretching 440 km from its extreme east end to the outlet of the Mackenzie River, the lake straddles two physiographic regions. The northeast shore of the north arm and the east arm lie within the Precambrian Shield and have irregular, precipitous margins. The western portion of the lake overlies the alluvial plain known as the Mackenzie Lowlands and has few islands and gently sloping shores. The rivers entering the lake from the shield are cold, clear and rapidly flowing while those entering from the south are slow flowing brown water streams

laden with silt during spring and early summer. While the western basin has a maximum depth of approximately 165 m and a mean depth of 42 m, a depth of 625 m has been recorded in the east arm (Rawson 1950). Physical and biological characteristics of the lake have been described in detail by Rawson (1950, 1951, 1953a, b).

DESCRIPTION OF THE FISHERY

Great Slave Lake has been fished commercially since 1945. During the 1950's annual production of whitefish and trout averaged 2.9 million kg as the large accumulated stock was exploited. Since the 1950's commercial production of both species has decreased annually and whitefish and trout have reacted differently to exploitation (Keleher 1972). The west end of the lake is now being managed for whitefish production with minimal regard to lake trout, the latter being unable to withstand commercial gillnetting. Gillnets have been the sole means of exploitation by the commercial fishery since its inception. The legal minimum mesh size was 139 mm stretched mesh until regulation changes in 1977 allowed the use of 133 mm mesh as the legal minimum mesh size. There has been no restriction on the number of nets a fisherman may use since 1961. Almost the entire lake has been open to commercial fishing at some point in the history of the fishery, although certain areas have been closed to protect subsistence and sport fisheries (Fig. 1 and Northwest Territories Fishery Regulations 1985). The east arm of Great Slave Lake (Area VI) was completely closed to commercial fishing in 1974 and is being managed exclusively for subsistence and sport fishing (Moshenko and Gillman 1978).

There are at least 25 fish species in the lake (Keleher 1972) of which only five are of commercial importance. The major commercial species in decreasing order of importance are: lake whitefish, Coregonus clupeaformis (Mitchill); lake trout, Salvelinus namaycush (Walbaum); inconnu, Stenodus leucichthys nelma (Pallas); northern pike, Esox lucius (Linnaeus); and walleye (pickerel), Stizostedion vitreum vitreum (Mitchill). Cisco, Coregonus spp., burbot, Lota lota (Linnaeus) and longnose sucker, Catostomus catostomus (Forster) may constitute up to 40% or more of the total catch; however, they are culled on the lake due to lack of market demand.

The lake is divided into six administrative areas for management purposes and a portion of the total annual quota of whitefish and trout is allotted to each area (Table 1). The annual quota is based on the period commencing 1 November and terminating on the following 31 October and applies to the combined catch for both the winter and summer fisheries. More detailed histories of the commercial fishery on Great Slave Lake are given by Kennedy (1956), Keleher (1972) and Bond and Turnbull (1973). The description of the winter and summer fisheries is summarized by Moshenko et al. (1978).

MATERIALS AND METHODS

FISH PLANT SAMPLING

Monthly summaries of the landings by species by administrative area were compiled from the Freshwater Fish Marketing Corporation (FFMC) sales slips by Department of Fisheries and Oceans (DFO) staff in Hay River

The following table lists the factors used to convert various species and forms to round weight:

| Species | Form Co | onversion Factor |
|-----------|----------------|------------------|
| Whitefish | dressed | x 1.17 |
| Pickerel | dressed | x 1.22 |
| | headless dress | ed x 1.39 |
| Trout | dressed | x 1.21 |
| | headless dress | ed x 1.53 |
| Pike | dressed | x 1.22 |
| | headless dress | ed x 1.53 |
| Inconnu | dressed | x 1.16 |
| | headless dress | ed x 1.35 |

Production values presented in this report (Tables 2-8) include whitefish culls at the plant but do not include an estimate of deteriorated whitefish discarded on the lake. Fishermen cull these fish as the nets are lifted but no record is made of the numbers or estimated weight. Fish which do not meet the market size and quality requirements are further culled by graders at the fish plant and the weight is recorded on the sales slip. Cullage on the lake was not subtracted from the quota during the 1988, 1989 and 1990 seasons.

Commercial landings of whitefish were sampled from each of the six administrative areas fished during the sample periods. Sampling frequency was based on a schedule as follows:

Winter - December 1 to March 30 Summer - June 10 to July 15 Fall - September 1 to October 15

Boxes of fish were selected at random from the catches of various fishermen as they arrived at the plant. All whitefish in the box, up to a maximum of 70 fish per individual fisherman were sampled. Thus, the sample of 200 whitefish should have been taken from at least three different fishermen. An additional 10 fish were sampled to compensate for scale samples which were unsuitable for aging. The fish were measured for fork length (± 1 mm) and dressed weight (± 50 g). Scales were taken from the left side of the fish from the area just above the lateral line and below the dorsal fin.

FISHERY OBSERVATIONS

Fishery observations were conducted in 1988 and 1989 by placing Department of Fisheries and Oceans (DFO) technicians on board the various types of commercial fishing vessels. These DFO observers accompanied the fish harvesters when they left port in the morning and returned with them at the end of the fishing day. The operators were interviewed for information pertaining to the number of nets set, location and duration of the net-gang sets. mesh size, mesh depth, twine size, depth fished, descriptive features of the fishing vessels and the size of crews. As the nets were lifted, observers kept a record of the number of fish of each species caught and culled per netgang (usually 5-8 nets). Observations were conducted in 1988 and 1989 during the months of June, July, August and September in four administrative areas of the lake to obtain information during the open-water fishing season.

BIOLOGICAL DATA

The scale age of whitefish was determined by counting the number of completed annuli. That is, an age 10 fish was in its eleventh year.

Data were analyzed using computer facilities (Micro Vax II) based at the Freshwater Institute Science Laboratory, Winnipeg, Manitoba. The Statistical Analysis System (version 6) was used to generate length, weight and age.

ACKNOWLEDGMENTS

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REFERENCES

- BOND, W.A. 1974a. The Great Slave Lake commercial fishery, summer, 1973. Can. Fish. Mar. Serv. Tech. Rep. Ser. CEN/T-74-8: vii + 38 p.
- BOND, W.A. 1974b. Data on ciscoes, burbot, and longnose suckers from Great Slave Lake, Northwest Territories, 1973. Can. Fish. Mar. Serv. Data Rep. Ser. CEN/D-74-3: vi + 44 p.
- BOND, W.A. 1975a. Commercial fishery data from Great Slave Lake, N.W.T., 1974. Can. Fish. Mar. Serv. Data Rep. Ser. CEN/D-75-5: vi + 24 p.
- BOND, W.A. 1975b. Results of an experimental gill netting program at the west end of Great Slave Lake, N.W.T. during summer, 1974. Can. Fish. Mar. Serv. Data Rep. Ser. CEN/D-75-7: viii + 83 p.
- BOND, W.A., and T.D. TURNBULL. 1973. Fishery investigations at Great Slave Lake, Northwest Territories 1972. Can.

- Fish. Mar. Serv. Tech. Rep. Ser. CEN/T-73-7: vii + 78 p.
- GREAT SLAVE LAKE WORKING PARTY. 1969. Unpublished report. 20 p. (Copy available from C.J. Read, Freshwater Institute, Winnipeg, MB.)
- KELEHER, J.J. 1972. Great Slave Lake: effect of exploitation on salmonid community. J. Fish. Res. Board Can. 29: 741-753.
- KENNEDY, W.A. 1956. The first ten years of commercial fishing on Great Slave Lake. Bull. Fish. Res. Board Can. 107: 58 p.
- LOW, G., and C.J. READ. 1987. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1983 and 1984. Can. Data Rep. Fish. Aquat. Sci. 641: v + 38 p.
- LOW, G., C.J. READ, and D.S. WATSON. 1989.
 Data from the commercial fishery for lake whitefish, *Coregonus clupeaformis* (Mitchill), on Great Slave Lake,
 Northwest Territories, 1985, 1986 and 1987. Can. Data Rep. Fish. Aquat. Sci. 761: v + 51 p.
- MOSHENKO, R.W., L.W. DAHLKE, and G. LOW. 1978. Data from the commercial fishery for lake whitefish, *Coregonus clupeaformis* (Mitchill), on Great Slave Lake, Northwest Territories, 1977. Can. Fish. Mar. Serv. Data Rep. 101: v + 30 p.
- MOSHENKO, R.W., and D.V. GILLMAN. 1978.
 Creel census and biological
 investigation on lake trout, Salvelinus
 namaycush (Walbaum), from Great Bear
 and Great Slave lakes, Northwest
 Territories, 1975-76. Can. Fish. Mar.
 Serv. Manuscr. Rep. 1440: v + 37 p.
- MOSHENKO, R.W., and G. LOW. 1978a. Lake whitefish, Coregonus clupeaformis (Mitchill), from the commercial fishery of Greet Slave Lake, Northwest Territories, 1975-76. Can. Mar. Fish. Serv. Data Rep. 53: iv + 16 p.
- MOSHENKO, R.W., and G. LOW. 1978b. An experimental gillnetting program on Great Slave Lake, Northwest Territories, 1977.

- Can. Fish. Mar. Serv. Data Rep. 102: iv + 51 p.
- MOSHENKO, R.W., and G. LOW. 1979. Data from the commercial fishery for lake whitefish, *Coregonus clupeaformis* (Mitchill), on Great Slave Lake, Northwest Territories, 1978. Can. Fish. Mar. Serv. Data Rep. 139: v + 29 p.
- MOSHENKO, R.W., and G. LOW. 1980. Data from the commercial fishery for lake whitefish, *Coregonus clupeaformis* (Mitchill), on Great Slave Lake, Northwest Territories, 1979. Can. Data Rep. Fish. Aquat. Sci. 194: v + 29 p.
- MOSHENKO, R.W., G. LOW, and C.J. READ.
 1981. Data from the commercial fishery
 for lake whitefish, *Coregonus*clupeaformis (Mitchill), on Great Slave
 Lake, Northwest Territories, 1980. Can.
 Data Rep. Fish. Aquat. Sci. 305: v + 30 p.
- NORTHWEST TERRITORIES FISHERY REGULATIONS. 1985. P.C. 1974-1106, amended P.C. 1985-2352 August 28, 1985.
- RAWSON, D.S. 1950. The physical limnology of Great Slave Lake. J. Fish. Res. Board Can.8: 1-66.
- RAWSON, D.S. 1951. Studies of fish of Great Slave Lake. J. Fish. Res. Board Can. 8: 207-240.
- RAWSON, D.S. 1953a. The standing crop of plankton in lakes. J. Fish. Res. Board Can. 10: 224-237.
- RAWSON, D.S. 1953b. The bottom fauna of Great Slave Lake. J. Fish. Res. Board Can. 10: 486-520.
- RICKER, W.E. 1975. Computations and interpretations of biological statistics of fish populations. Bull. Fish. Res. Board Can. 119: 382 p.

- ROBERGE, MM., G. LOW, and C.J. READ.
 1982. Data from the commercial fishery
 for lake whitefish, *Coregonus*clupeaformis (Mitchell), on Great Slave
 Lake, Northwest Territories, 1981. Can.
 Data Rep. Fish. Aquat. Sci. 335: iv + 21
 p.
- ROBERGE, M.M., G. LOW, and C.J. READ.
 1984. Data from the commercial fishery
 for lake whitefish, *Coregonus*clupeaformis (Mitchill), on Great Slave
 Lake, Northwest Territories, 1982. Can.
 Data Rep. Fish. Aquat. Sci. 437: iv + 24
 p.
- ROBSON, D.S., and D.G. CHAPMAN. 1961. Catch curves and mortality rates. Trans. Am. Fish. Soc. 90(2): 181-189.
- SAS INSTITUTE INC., SAS/STAT User's Guide, Version 6, Fourth Edition, Volume 1, Cary, NC: SAS Institute Inc., 1989. 943 pp.
- SAS INSTITUTE INC., SAS/STAT User's Guide, Version 6, Fourth Edition, Volume 2, Cary, NC: SAS Institute Inc., 1989. 846 pp.

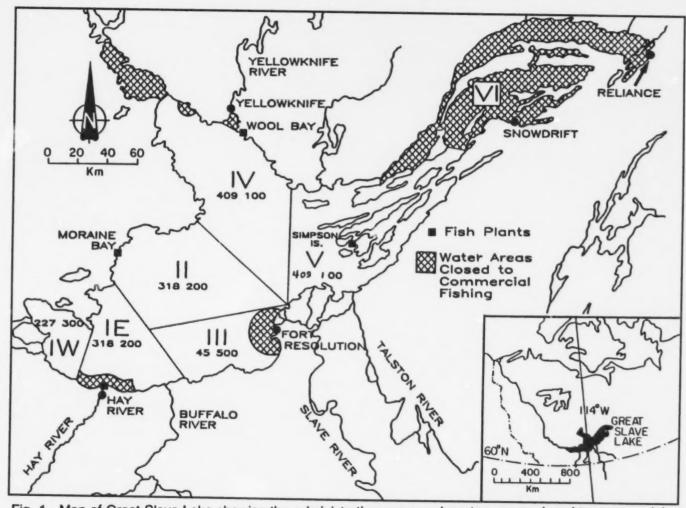


Fig. 1. Map of Great Slave Lake showing the administrative areas and quotas, areas closed to commercial fishing and the location of the fish plants.

C

Table 1. Commercial quotas in effect on Great Slave Lake during the 1976 to 1990 seasons.

| Commercial | Quota | of | Whitefish | and | Trout1 |
|------------|-------|----|-----------|-----|--------|
| (kg | round | W | eight) | | |

| Year ¹ | Area IW | Area IE | Area II | Area III | Area IV | Area V | Total | | | |
|-------------------|---------|---------|---------|----------|---------|---------|-----------|--|--|--|
| 1975-76 | 227 273 | 318 181 | 681 819 | Nil | 622 727 | 325 000 | 2 175 000 | | | |
| 1976-77 | 227 273 | 318 181 | 318 181 | Nil | 409 091 | 272 729 | 1 545 455 | | | |
| 1977-78 | 227 273 | 318 181 | 318 181 | Nil | 409 091 | 272 729 | 1 545 455 | | | |
| 1978-79 | 227 273 | 318 181 | 318 181 | 45 455 | 409 091 | 295 455 | 1 613 636 | | | |
| 1979-80 | 227 273 | 318 181 | 318 181 | 45 455 | 409 091 | 363 637 | 1 681 818 | | | |
| 1980-81 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 363 600 | 1 681 900 | | | |
| 1981-82 | 227 300 | 318 200 | 318 200 | 79 500 | 409 100 | 363 600 | 1 715 900 | | | |
| 1982-83 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 363 600 | 1 681 900 | | | |
| 1983-84 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 363 600 | 1 681 900 | | | |
| 1984-85 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 363 600 | 1 681 900 | | | |
| 1985-86 | 227 300 | 318 200 | 318 200 | 70 000 | 409 100 | 363 600 | 1 706 400 | | | |
| 1986-87 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 363 600 | 1 681 900 | | | |
| 1987-88 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 409 100 | 1 681 900 | | | |
| 1988-89 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 409 100 | 1 681 900 | | | |
| 1989-90 | 227 300 | 318 200 | 318 200 | 45 500 | 409 100 | 409 100 | 1 681 900 | | | |

¹ Season runs from November 1 of one year to October 31 of the next year.

Table 2. Total production of commercial species (kg round weight) by administrative area, November 1, 1987 to October 31, 1988.

| | Production From Each Administration Area | | | | | | | | | | |
|-----------|--|---------|---------|----------|---------|---------|-----------|--|--|--|--|
| Species1 | Area IW | Area IE | Area II | Area III | Area IV | Area V | Total | | | | |
| Whitefish | 232 645 | 308 805 | 318 392 | 30 339 | 412 857 | 135 978 | 1 439 016 | | | | |
| Trout | 3 297 | 7 151 | 6 845 | 1 567 | 5 301 | 41 094 | 65 255 | | | | |
| Pike | 35 487 | 8 205 | 10 702 | 1 047 | 25 558 | 31 865 | 112 864 | | | | |
| Inconnu | 2 463 | 23 796 | 2 333 | 6 281 | 12 255 | 8 234 | 55 362 | | | | |
| Walleye | 282 | 814 | 8 | 226 | 13 023 | 5 919 | 20 272 | | | | |
| Burbot | 0 | 113 | 0 | 0 | 63 | 0 | 176 | | | | |
| Total | 274 174 | 348 884 | 338 280 | 39 460 | 469 057 | 223 090 | 1 692 945 | | | | |

Table 3. Total production of commercial species (kg round weight) by administrative area, November 1, 1988 to October 31, 1989.

| | Production From Each Administration Area | | | | | | | | | |
|-----------|--|---------|---------|----------|---------|---------|-----------|--|--|--|
| Species1 | Area IW | Area IE | Area II | Area III | Area IV | Area V | Total | | | |
| Whitefish | 234 075 | 312 330 | 301 175 | 41 950 | 395 161 | 166 643 | 1 451 334 | | | |
| Trout | 8 710 | 23 790 | 14 317 | 3 207 | 8 476 | 78 724 | 137 224 | | | |
| Pike | 47 197 | 9 006 | 17 040 | 4 739 | 28 083 | 64 425 | 170 490 | | | |
| Inconnu | 2 760 | 29 540 | 712 | 8 644 | 3 829 | 38 247 | 83 732 | | | |
| Walleye | 1 041 | 746 | 71 | 216 | 12 812 | 5 424 | 20 310 | | | |
| Sucker | 0 | 2 | 0 | 139 | 0 | 0 | 141 | | | |
| Total | 293 783 | 375 414 | 333 315 | 58 895 | 448 361 | 353 463 | 1 863 231 | | | |

Table 4. Total production of commercial species (kg round weight) by administrative area, November 1, 1989 to October 31, 1990.

| | Production From Each Administration Area | | | | | | | | | | |
|-----------|--|---------|---------|----------|---------|---------|-----------|--|--|--|--|
| Species1 | Area IW | Area IE | Area II | Area III | Area IV | Area V | Total | | | | |
| Whitefish | 225 839 | 199 491 | 308 196 | 40 715 | 337 263 | 205 904 | 1 317 408 | | | | |
| Trout | 9 778 | 24 704 | 9 501 | 176 | 3 419 | 39 638 | 87 216 | | | | |
| Pike | 67 110 | 15 518 | 23 268 | 2 533 | 32 602 | 62 470 | 203 501 | | | | |
| Inconnu | 1 230 | 18 507 | 514 | 4 324 | 2 466 | 42 433 | 69 474 | | | | |
| Walleye | 568 | 4 009 | 205 | 1 036 | 21 166 | 7 479 | 34 463 | | | | |
| Total | 304 525 | 262 229 | 341 684 | 48 784 | 396 916 | 357 924 | 1 712 062 | | | | |

Table 5. Production of whitefish and trout (kg round weight) from each administrative area for winter 1987/88 and summer, 1988.

| A desiniatenti | Winter | | Summer | | Total | | | |
|------------------------|-----------|--------|-----------|--------|-----------|--------|-----------|--|
| Administrative Area | Whitefish | Trout | Whitefish | Trout | Whitefish | Trout | Total | |
| IW | 232 645 | 3 297 | 0 | 0 | 232 645 | 3 297 | 235 942 | |
| IE | 157 119 | 3 432 | 150 686 | 3 719 | 307 805 | 7 151 | 314 956 | |
| 11 | 160 119 | 2014 | 158 273 | 4 831 | 318 392 | 6 845 | 325 237 | |
| 111 | 14 569 | 645 | 15 770 | 922 | 30 339 | 1 567 | 31 906 | |
| IV | 150 014 | 166 | 262 843 | 5 135 | 412 857 | 5 301 | 418 158 | |
| V | 29 229 | 13 012 | 106 749 | 28 082 | 135 978 | 41 094 | 177 072 | |
| Total | 743 695 | 22 566 | 694 321 | 42 689 | 1 438 016 | 65 255 | 1 503 271 | |

Table 6. Production of whitefish and trout (kg round weight) from each administrative area for winter 1988/89 and summer, 1989.

| A desinintension | Winter | | Summer | | Total | | | |
|------------------------|-----------|--------|-----------|---------|-----------|---------|-----------|--|
| Administrative Area | Whitefish | Trout | Whitefish | Trout | Whitefish | Trout | Total | |
| IW | 192 182 | 6 433 | 41 893 | 2 277 | 234 075 | 8 710 | 242 785 | |
| IE | 103 745 | 7 045 | 208 585 | 16 745 | 312 330 | 23 790 | 336 120 | |
| 11 | 140 501 | 5 636 | 160 674 | 8 681 | 301 175 | 14 317 | 315 492 | |
| III | 29 260 | 3 140 | 12 690 | 67 | 41 950 | 3 207 | 45 157 | |
| IV | 115 961 | 847 | 279 200 | 7 629 | 395 161 | 8 476 | 403 637 | |
| V | 11 963 | 394 | 154 680 | 78 330 | 166 643 | 78 724 | 245 367 | |
| Total | 593 612 | 23 495 | 857 722 | 113 729 | 1 451 334 | 137 224 | 1 588 558 | |

Table 7. Production of whitefish and trout (kg round weight) from each administrative area for winter 1989/90 and summer, 1990.

| A di-i-44i | Wint | er | Sum | Summer | | tal | | |
|------------------------|-----------|--------|-----------------|--------|-----------|--------|-----------|--|
| Administrative Area | Whitefish | Trout | Trout Whitefish | Trout | Whitefish | Trout | Total | |
| IW | 190 730 | 8 395 | 35 109 | 1 383 | 225 839 | 9 778 | 235 617 | |
| IE | 45 947 | 4 918 | 153 544 | 19 786 | 199 491 | 24 704 | 224 195 | |
| 11 | 114 334 | 2 946 | 193 862 | 6 555 | 308 196 | 9 501 | 317 697 | |
| III | 0 | 0 | 40 715 | 176 | 40 715 | 176 | 40 891 | |
| IV | 85 691 | 1 010 | 251 572 | 2 409 | 337 263 | 3 419 | 340 682 | |
| V | 101 077 | 11 668 | 104 827 | 27 970 | 205 904 | 39 638 | 245 542 | |
| Total | 537 779 | 28 937 | 779 629 | 58 279 | 1 317 408 | 87 216 | 1 404 624 | |

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Table 8. Annual production (x 1000 kg, round weight) of commercial species, Great Slave Lake, 1973-1990.

| | | | | | Walleye | Total | | |
|-------------------|-----------|-----------------|------|---------|---------|----------------------|----------------|--|
| Year ¹ | Whitefish | Whitefish Trout | Pike | Inconnu | | Whitefish & Trout | All Species | |
| 1972-73 | 1 004 | 92 | 155 | 103 | 17 | 1 096 | 1 371 | |
| 1973-74 | 973 | 111 | | | | 1 084 | 1 084 | |
| 1974-75 | 921 | 99 | 96 | 95 | 10 | 1 020 | 1 221 | |
| 1975-76 | 975 | 83 | 103 | 77 | 9 | 1 058 | 1 247 | |
| 1976-77 | 1 172 | 108 | 118 | 86 | 11 | 1 280 | 1 495 | |
| 1977-78 | 1 107 | 105 | 157 | 153 | 13 | 1 212 | 1 535 | |
| 1978-79 | 1 065 | 121 | 129 | 153 | 6 | 1 186 | 1 474 | |
| 1979-80 | 1 178 | 122 | 199 | 65 | 19 | 1 300 | 1 583 | |
| 1980-81 | 1 097 | 85 | 151 | 43 | 4 | 1 182 | 1 380 | |
| 1981-82 | 1 139 | 75 | 166 | 23 | | 1 214 | 1 411 | |
| 1982-83 | 899 | 61 | 115 | 16 | 8 5 | 960 | 1 096 | |
| 1983-84 | 863 | 50 | 108 | 47 | 15 | 913 | 1 083 | |
| 1984-85 | 876 | 110 | 155 | 72 | 13 | 986 | 1 226 | |
| 1985-86 | 1 219 | 107 | 130 | 62 | 12 | 1 326 | 1 530 | |
| 1986-87 | 1 310 | 127 | 140 | 74 | 14 | 1 437 | 1 665 | |
| 1987-88 | 1 438 | 65 | 113 | 74 | 20 | 1 503 | 1 710 | |
| 1988-89 | 1 451 | 137 | 170 | 84 | 20 | 1 588 | 1 863 | |
| 1989-90 | 1 317 | 87 | 204 | 69 | 34 | 1 404 | 1 711 | |

¹ Season runs from November 1 of one year to October 31 of the next year.

Table 9. Prices (¢/kg) for the commercial fish species, basis loose fresh fish, F.O.B. Freshwater Fish Marketing Corporation, Hay River plant, Great Slave Lake, winter 1987/88 and summer 1988.

| | | | Winter | 1987-88³ | | Summ | ner 1988 ⁴ | |
|---------------|------------------------|-----------|-------------------|-----------|-------------------|-------------------|-----------------------|-------------------------------|
| | | | FFMC ¹ | | | | | |
| Species and | Form | Nov. 1/87 | Jan. 3/88 | Apr. 3/88 | GNWT ² | FFMC ¹ | GNWT ² | Final Payment ⁸ |
| Whitefish (de | ressed) | | | | | | | |
| smokers | - large | | | | - | 93.5 | 33 | 44.3 |
| | - medium | - | | - | - | 84.7 | 33 | 44.3 |
| jumbo (ove | er 1.8 kg) | 102.5 | 190.5 | 102.5 | 18.5 | 78.1 | 33 | 44.3 |
| large (1.4- | 1.8 kg) | 91.5 | 179.5 | 91.5 | 18.5 | 75.9 | 33 | 44.3 |
| medium (0 | .7-1.4 kg) | 80.5 | 168.5 | 80.5 | 18.5 | 73.7 | 33 | 44.3 |
| small (0.4) | 5-0.7 kg) | 47.5 | 113.5 | 47.5 | 18.5 | 36.3 | 33 | 44.3 |
| Lake Trout | | | | | | | | |
| dressed | - medium (1.8-3.6 kg) | 223.5 | 223.5 | 223.5 | 0 | 113.3 | 0 | 27.3 |
| | - small (0.9-1.8 kg) | 201.5 | 201.5 | 201.5 | 0 | 91.3 | 0 | 27.3 |
| headless d | ressed (over 3.6 kg) | 201.5 | 201.5 | 201.5 | 0 | 102.3 | 0 | 27.3 |
| Walleye | | | | | | | | |
| round | - large (over 1.6 kg) | 179.5 | 378.5 | 179.5 | 0 | | - | 222.2 |
| | - medium (0.6-1.6 kg) | 257.5 | 378.5 | 257.5 | 0 | | | 222.2 |
| | - small (0.35-0.6 kg) | 179.5 | 224.5 | 179.5 | 0 | | | 222.2 |
| dressed | - large (over 1.4 kg) | 223.5 | 223.5 | 223.5 | 0 | 207.9 | 0 | 266.8 |
| | - medium (0.55-1.4 kg) | 323.5 | 323.5 | 323.5 | 0 | 253.0 | 0 | 266.8 |
| | - small (0.3-0.55 kg) | 179.5 | 179.5 | 179.5 | 0 | 185.9 | 0 | 266.8 |
| Northern Pike | | | | | | | | |
| dressed (1. | .8-4.1 kg) | 124.5 | 124.5 | 124.5 | 0 | 91.3 | 0 | 55.2 |
| headless di | | 91.5 | 91.5 | 91.5 | 0 | 58.3 | o | 55.2 |
| nconnu | | | | | | | | |
| headless di | ressed | 224.5 | 224.5 | 224.5 | 0 | 168.3 | 0 | 96.9 |

¹ Freshwater Fish Marketing Corporation prices.

² Government of Northwest Territories subsidy (whitefish only).

^{3 30%} of above listed price was deducted for fish delivered frozen.

⁴ A freight charge of 3.3 ¢/kg was deducted for fish delivered to the FFMC lake stations. ⁵ Final payments on fish produced during the 1987-88 fiscal year.

Table 10. Prices (¢/kg) for the commercial fish species, basis loose fresh fish, F.O.B. Freshwater Fish Marketing Corporation, Hay River plant, Great Slave Lake, winter 1988/89 and summer 1989.

| | | | Winter | 1988-893 | | Summ | ner 1989 ⁴ | |
|---------------|------------------------|-----------|-------------------|-----------|-------------------|-------------------|-----------------------|-------------------------------|
| | | | FFMC ¹ | | | | | =:1 |
| Species and | Form | Nov. 6/88 | Jan. 1/89 | Apr. 2/89 | GNWT ² | FFMC ¹ | GNWT ² | Final Payment ⁵ |
| Whitefish (d | ressed) | | | | | | | |
| jumbo (ove | er 1.8 kg) | 102.5 | 190.5 | 102.5 | 18.5 | 97.3 | 33 | 48.1 |
| large (1.4- | 1.8 kg) | 91.5 | 179.5 | 91.5 | 18.5 | 95.0 | 33 | 48.1 |
| medium (0 |).7-1.4 kg) | 80.5 | 168.5 | 80.5 | 18.5 | 86.0 | 33 | 48.1 |
| small (0.4) | | 47.5 | 113.5 | 47.5 | 18.5 | 44.0 | 33 | 48.1 |
| Lake Trout | | | | | | | | |
| dressed | - medium (1.8-3.6 kg) | 224.5 | 224.5 | 224.5 | 0 | 110.0 | 0 | 0 |
| | - small (0.9-1.8 kg) | 201.5 | 201.5 | 201.5 | 0 | 88.0 | 0 | 0 |
| headless d | ressed (over 3.6 kg) | 201.5 | 201.5 | 201.5 | 0 | 99.0 | 0 | 0 |
| Walleye | | | | | | | | |
| round | - large (over 1.6 kg) | 179.5 | 378.5 | 179.5 | 0 | - | | - |
| | - medium (0.6-1.6 kg) | 257.5 | 378.5 | 257.5 | 0 | | | |
| | - small (0.35-0.6 kg) | 179.5 | 224.5 | 179.5 | 0 | - | | |
| dressed | - large (over 1.4 kg) | 235.4 | 235.5 | 235.5 | 0 | 183.0 | 0 | 52.9 |
| | - medium (0.55-1.4 kg) | 323.5 | 323.5 | 323.5 | 0 | 214.0 | 0 | 52.9 |
| | - small (0.3-0.55 kg) | 179.5 | 179.5 | 179.5 | 0 | 161.0 | 0 | 52.9 |
| Northern Pike | 9 | | | | | | | |
| dressed | - large (1.8-4.1 kg) | 102.5 | 102.5 | 102.5 | 0 | 88.0 | 0 | 40.1 |
| | - medium (0.9-1.8 kg) | | | | - | 55.0 | 0 | 40.1 |
| headless | - other (over 0.9 kg) | 69.5 | 69.5 | 69.5 | 0 | 55.0 | 0 | 40.1 |
| | - small (0.35-0.9 kg) | 69.5 | 69.5 | 69.5 | 0 | 55.0 | 0 | 40.1 |
| nconnu | _ | , | | | | | | |
| headless dr | ressed | 224.5 | 224.5 | 224.5 | 0 | 187.0 | . 0 | 65.5 |

¹ Freshwater Fish Marketing Corporation prices.
² Government of Northwest Territories subsidy (whitefish only).

³ 30% of above listed price was deducted for fish delivered frozen.

⁴ A freight charge of 3.3 ¢/kg was deducted for fish delivered to the FFMC lake stations.

⁵ Final payments on fish produced during the 1988-89 fiscal year.

Table 11. Prices (¢/kg) for the commercial fish species, basis loose fresh fish, F.O.B. Freshwater Fish Marketing Corporation, Hay River plant, Great Slave Lake, winter 1989/90 and summer 1990.

| | | | Winter | 1989-90³ | | Summ | ner 1990 ⁴ | |
|-------------------------|------------------------|-----------|-------------------|-----------|-------------------|-------------------|-----------------------|-------------------------------|
| | | <u> </u> | FFMC ¹ | | | | | - |
| Species and | Form | Nov. 5/89 | Dec. 31/89 | Apr. 1/90 | GNWT ² | FFMC ¹ | GNWT ² | Final Payment ⁵ |
| Whitefish (dr | ressed) | | | | | | | |
| jumbo (ove | or 1.8 kg) | 115.0 | 187.0 | 115.0 | 22.0 | 97.3 | 33 | 3.1 |
| large (1.4- | 1.8 kg) | 104.0 | 176.0 | 104.0 | 22.0 | 95.0 | 33 | 3.1 |
| medium (0 | .7-1.4 kg) | 93.0 | 165.0 | 93.0 | 22.0 | 86.0 | 33 | 3.1 |
| small (0.45 | 5-0.7 kg) | 55.0 | 110.0 | 55.0 | 22.0 | 44.0 | 33 | 3.1 |
| Lake Trout ⁶ | | | | | | | | |
| dressed | - medium (1.8-3.6 kg) | 176.0 | 176.0 | 176.0 | 0 | 99.0 | 0 | 0 |
| | - small (0.9-1.8 kg) | 154.0 | 154.0 | 154.0 | 0 | 121.0 | 0 | 0 |
| headless d | ressed (over 3.6 kg) | 154.0 | 154.0 | 154.0 | 0 | 110.0 | 0 | 0 |
| Walleye | | | | | | | | |
| round | - large (over 1.6 kg) | 165.0 | 209.0 | 165.0 | 0 | 132.0 | 0 | 21.2 |
| | - medium (0.6-1.6 kg) | 187.0 | 297.0 | 187.0 | 0 | 143.0 | 0 | 21.2 |
| | - small (0.35-0.6 kg) | 165.0 | 209.0 | 165.0 | 0 | 132.0 | 0 | 21.2 |
| dressed | - large (over 1.4 kg) | 165.0 | 253.0 | 165.0 | 0 | 162.0 | 0 | 25.4 |
| | - medium (0.55-1.4 kg) | 187.0 | 253.0 | 187.0 | 0 | 176.0 | 0 | 25.4 |
| | - small (0.3-0.55 kg) | 165.0 | 176.0 | 165.0 | 0 | 147.4 | 0 | 25.4 |
| Northern Pike | | | | | | | | |
| dressed | - large (1.8-4.1 kg) | 99.0 | 99.0 | 99.0 | 0 | 88.0 | 0 | 33.4 |
| headless | - other (over 0.9 kg) | 66.0 | 66.0 | 66.0 | 0 | 55.0 | 0 | 33.4 |
| | - small (0.35-0.9 kg) | 66.0 | 66.0 | 66.0 | 0 | 55.0 | 0 | 33.4 |
| inconnu | | | | | | | | |
| headless dr | ressed | 221.0 | 221.0 | 221.0 | 0 | 220.0 | 0 | 34.0 |

Freshwater Fish Marketing Corporation prices.
 Government of Northwest Territories subsidy (whitefish only).
 30% of above listed price was deducted for fish delivered frozen.

⁴ A freight charge of 3.3 ¢/kg was deducted for fish delivered to the FFMC lake stations.

⁶ Final payments on fish produced during the 1989-90 fiscal year.

⁶ Trout reduction program in effect.

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Table 12. Summary of fishery observation information on vessels and gillnets used during the summer commercial fishery, Great Slave Lake, 1988.

| | Class | Α | Class | В | Tot | al |
|------------------|-----------------------------|----------------|------------------------|----------------|------------------------|----------------|
| Area | No. of Observations | No. of Nets | No. of Observations | No. of Nets | No. of Observations | No. of Nets |
| IE | 6 | 412 | 5 | 50 | 11 | 462 |
| ł! | 17 | 1070 | 8 | 165 | 25 | 1235 |
| IV | 16 | 1132 | 2 | 34 | 18 | 1166 |
| V | 4 | 181 | 6 | 52 | 10 | 233 |
| Total | 43 | 2795 | 21 | 301 | 64 | 3096 |
| Mean No. Nets/ | Boat | 68.3 | 14.3 | | | |
| Mean No. Nets I | Lifted/Day | 35.0 | 9.8 | | | |
| Mean No. Net-G | angs Lifted/Day | 5.1 | 2.3 | | | |
| Depth of Nets (N | Meshs) | 24-100 | 30-80 | | | |
| Mean No. of Cre | w Members/Boat ¹ | 4.2 | 1.3 | | | |
| 133 mm Nets Us | sed (%) | 99.7 | 99.7 | | | |

¹ Operator included as crew member.

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Table 13. Summary of fishery observation information on vessels and gillnets used during the summer commercial fishery, Great Slave Lake, 1989.

| | Class | A | Class | В | Tot | al |
|------------------|-----------------------------|----------------|------------------------|----------------|------------------------|----------------|
| Area | No. of Observations | No. of Nets | No. of Observations | No. of Nets | No. of Observations | No. of Nets |
| IE | 19 | 482 | 6 | 76 | 25 | 558 |
| 11 | 25 | 1019 | 1 | 11 | 26 | 1030 |
| IV | 16 | 608 | 4 | 63 | 20 | 671 |
| V | 11 | 247 | 11 | 160 | 22 | 407 |
| Total | 71 | 2356 | 22 | 310 | 93 | 2730 |
| Mean No. Nets/E | Boat | 64.8 | 17.6 | | | |
| Mean No. Nets L | Lifted/Day | 33.2 | 14.1 | | | |
| Mean No. Net-G | angs Lifted/Day | 4.8 | 6.8 | | | |
| Depth of Nets (N | Meshs) | 40-120 | 30-80 | | | |
| Mean No. of Cre | w Members/Boat ¹ | 4.3 | 1.7 | | | |
| 133 mm Nets Us | sed (%) | 97.9 | 81.6 | | | |

¹ Operator included as crew member.

Table 14. Species composition and catch per unit effort (CPUE) for each administrative area from fishery observations on Great Slave Lake, summer 1988.

| Area Metres of net | | | E 775 | | | | II 3,907 | | | 12 | IV 2,110 | | | 26, | V 680 | | | | otal 3,482 | |
|---------------------------|-------|------|----------|----------------|-------|------|-------------|------------------|-------|------|-------------|------|------|------|-------------|------|-------|-----------------------|---------------|------------|
| Species | No. | % of | | CPUE 1 Wt.2 | No. | % of | | ht PUE Wt. | No. | % 0 | f _C | PUE | No. | % (| of <u>C</u> | PUE | No. | Fish % of Total | | PUE Wt. |
| L. whitefish ³ | 5221 | 46.2 | 11.2 | 11.5 | 19899 | 66.8 | 10.8 | 13.0 | 16158 | 44.6 | 12.1 | 12.9 | 4348 | 69.5 | 14.9 | 16.8 | 45626 | 54.6 | 11.6 | 13.2 |
| L. trout | 36 | 0.3 | 0.1 | | 159 | 0.5 | 0.1 | | 142 | | 0.1 | | 826 | 13.2 | 2.8 | 8.0 | 1163 | 1.4 | 0.3 | - |
| Walleye | 22 | 0.2 | | - | 1 | | - | - | 792 | 2.2 | 0.6 | | 162 | 2.6 | 0.6 | | 977 | 1.2 | 0.3 | - |
| N. pike | 42 | 0.4 | 0.1 | | 90 | 0.3 | | | 877 | 2.4 | 0.7 | | 167 | 2.7 | 0.6 | | 1176 | 1.4 | 0.3 | |
| Inconnu | 238 | 2.1 | 0.5 | | 9 | | - | - | 8 | | • | • | 12 | .2 | | | 267 | 0.3 | 0.1 | • |
| Cisco | 4367 | 38.7 | 9.3 | 45.2 | 7152 | 24.0 | 3.8 | 1.7 | 16271 | 44.9 | 12.2 | 5.5 | 409 | 6.5 | 1.4 | 0.6 | 28199 | 33.7 | 7.1 | 3.2 |
| L.n. sucker | 595 | 5.3 | 1.3 | 2.1 | 28 | 0.1 | | | 479 | 1.3 | 0.4 | 0.5 | 94 | 1.5 | 0.3 | 0.5 | 1196 | 1.4 | 0.3 | 0.4 |
| Burbot | 771 | 6.8 | 1.6 | 2.2 | 2461 | 3.5 | 1.3 | 2.1 | 1513 | 4.2 | 1.1 | 1.7 | 234 | 5.6 | 0.8 | 1.3 | 4979 | 6.0 | 1.3 | 2.1 |
| Goldeye | 5 | | | - | | • | • | | | | | | 5 | 0.1 | • | - | 10 | • | - | • |
| W. sucker | | | | | | | - | - | 4 | | | - | 3 | 0.1 | • | - | 7 | | • | • |
| Total | 11297 | | 24.1 | | 29799 | - | 16.0 | | 36244 | | 27.2 | | 6260 | | 21.4 | | 83600 | - | 21.3 | |

Number of fish/91 m of net/24 hour period.
 Round weight of fish (kg)/91 metres of net/24 hour period.
 Mean round weight converted from dressed weight of 1987 plant samples.

Table 15. Species composition and catch per unit effort (CPUE) for each administrative area from fishery observations on Great Slave Lake, summer 1989.

| Area Metres of net | | 124 | ,215 | | | 184 | ,002 | | | | V 1,811 | | | | V 611 | | | | otal 8,639 | |
|---------------------------|-------|-----------------------|-------------|-------------|-------|-----------------------|------|------------|-------|------|------------|------|-------|------|-------------|------|-------|----------------------|---------------|------------|
| Species | No. | Fish % of Total | Cauq No. | CPUE 1 Wt.2 | No. | Fish % of Total | | PUE Wt. | No. | % 0 | f Cauc | PUE | No. | % (| of <u>C</u> | | No. | Fish % of Tota | | PUE Wt. |
| L. whitefish ³ | 12437 | 59.4 | 10.0 | 10.2 | 12902 | 83.1 | 7.0 | 8.4 | 26940 | 62.4 | 15.4 | 16.5 | 8859 | 70.4 | 13.5 | 15.3 | 61138 | 66.3 | 11.4 | 13.0 |
| L. trout | 727 | 3.5 | 0.6 | | 209 | 1.3 | 0.1 | | 32 | | - | | 902 | 7.2 | 1.4 | 4.0 | 1870 | 2.0 | 0.3 | • |
| Walleye | 7 | | - | | | | - | - | 445 | 1.0 | 0.3 | - | 99 | 0.8 | 0.2 | - | 551 | 0.6 | 0.1 | |
| N. pike | 34 | 0.1 | - | | 30 | 0.2 | - | | 440 | 1.0 | 0.3 | | 416 | 3.3 | 0.6 | | 920 | 1.0 | 0.2 | |
| Inconnu | 205 | 1.0 | 0.2 | • | 9 | - | - | - | 19 | | - | | 223 | 1.8 | 0.3 | • | 456 | 0.5 | 0.1 | • |
| Cisco | 3528 | 16.9 | 2.8 | 1.2 | 1161 | 7.5 | 0.6 | 0.3 | 13035 | 30.2 | 7.5 | 3.4 | 517 | 4.1 | 0.8 | 0.4 | 18241 | 19.8 | 3.3 | 1.5 |
| L.n. sucker | 1295 | 6.2 | 1.0 | 1.7 | 106 | 0.7 | 0.1 | 0.2 | 999 | 2.3 | 0.6 | 1.0 | 592 | 4.7 | 0.9 | 1.5 | 2992 | 3.2 | 0.5 | 0.8 |
| Burbot | 2700 | 12.9 | 2.2 | 3.0 | 1103 | 7.1 | 0.6 | 0.8 | 1255 | 2.9 | 0.7 | 1.0 | 912 | 7.2 | 1.4 | 1.9 | 5970 | 6.5 | 1.1 | 1.5 |
| Goldeye | 1 | • | | - | | - | | • | • | • | - | - | 49 | 0.4 | 0.1 | - | 50 | | - | - |
| W. sucker | - | • | - | | | | - | | 1 | - | - | | | | • | - | 1 | • | - | - |
| A. Grayling | 2 | | | | 1 | | | | • | | | | 11 | | | - | 14 | • | • | - |
| Total | 20936 | - | 16.8 | - | 15521 | - | 8.4 | | 43166 | | 24.8 | | 12580 | | 19.2 | | 92203 | - | 17.0 | • |

¹ Number of fish/91 m of net/24 hour period.

Round weight of fish (kg)/91 metres of net/24 hour period.
 Mean round weight converted from dressed weight of 1987 plant samples.

Table 16. Weight composition by market weight intervals for lake whitefish from commercial plant samples, Great Slave Lake, 1987/88.

| MARKET WEIGHT INTERVAL | AREA NO. | IE % | ARE | A IW | NO. | X 11 | AREA NO. | 111 | NO. | N IV | NO. | N V | | TAL |
|---------------------------|-------------|------|-----|------|-----|------|-------------|-----|-----|------|-----|-----|------|-----|
| (DRESSED) | NO. | * | NU. | | NO. | | NO. | | | | | | | |
| NO MARKET (< 0.45 kg) | | - | - | - | - | - | - | - | 6 | - | 1 | - | 7 | • |
| SMALL (0.45-0.69 kg) | . 16 | 4 | 17 | 8 | 21 | 5 | 3 | 1 | 52 | 8 | 3 | 1 | 112 | 5 |
| MEDIUM (0.70-1.39 kg) | 396 | 95 | 190 | 90 | 395 | 94 | 185 | 89 | 560 | 89 | 192 | 91 | 1918 | 91 |
| ARGE (1.40-1.80 kg) | 7 | 2 | 3 | 1 | 3 | - | 17 | 8 | 10 | 2 | 13 | 6 | 53 | 3 |
| JUMBO (> 1.80 kg) | - | - | - | - | - | | 4 | 2 | 2 | - | 1 | • | 7 | - |
| TOTAL | 419 | | 210 | | 419 | | 209 | | 630 | | 210 | | 2097 | |

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Table 17. Age composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1987/88.

| AGE | | | FORK LE | NGTH(mm) | DRESSED | WEIGHT (g) |
|-----------------------|------|------|---------|----------|---------|------------|
| (yr) | NO. | % | MEAN | SD. | MEAN | SD. |
| 6 | 2 | 0.2 | 375 | 17.0 | 675 | 106.1 |
| 7 | 10 | 0.9 | 388 | 32.9 | 775 | 211.1 |
| 8 | 203 | 17.4 | 396 | 20.9 | 885 | 178.5 |
| 8 | 233 | 20.0 | 400 | 21.7 | 884 | 169.2 |
| 10 | 252 | 21.6 | 405 | 19.9 | 903 | 150.5 |
| 11 | 249 | 21.4 | 414 | 21.3 | 945 | 155.2 |
| 12 | 106 | 9.1 | 418 | 22.3 | 997 | 193.4 |
| 13 | 54 | 4.6 | 428 | 20.9 | 1047 | 147.8 |
| 14 | 29 | 2.5 | 439 | 23.2 | 1109 | 172.7 |
| 15 | 14 | 1.2 | 452 | 28.3 | 1225 | 291.4 |
| 16 | 9 | 0.8 | 448 | 38.2 | 1244 | 366.1 |
| 17 | 3 | 0.3 | 508 | 66.0 | 1867 | 604.8 |
| TOTAL | 1164 | | | | | |
| WEAN WEAN AGE 10.2 | | | 408 | 25.1 | 933 | 190.8 |

Table 18. Age composition of commercial whitefish for each seasonal period from area IW, 1987/88.

| | | WINTE | R | | SPRIN | G | | FALL | | | | | | |
|----------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|------|-------|-------|-------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | FOR | H(mm) | WEIGH | |
| (yr) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (g) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | 3 | 396 | 783 | - | _ | _ | - | - | - | 3 | 396 | 22.1 | 783 | 125. |
| A | 14 | 379 | 682 | - | | - | - | _ | - | 14 | 379 | 18.0 | 682 | 121. |
| 9 | 34 | 400 | 851 | _ | - | - | - | - | - | 34 | 400 | 24.9 | 851 | 156. |
| 10 | 39 | 409 | 886 | - | - | - | - | - | - | 39 | 409 | 14.5 | 886 | 109. |
| 11 | 18 | 423 | 947 | - | _ | - | - | - | - | 18 | 423 | 20.3 | 947 | 123. |
| 12 | 5 | 445 | 1130 | - | - | - | - | - | - | 5 | 445 | 23.0 | 1130 | 213.5 |
| 13 | 2 | 456 | 1175 | - | - | - | - | - | - | 2 | 456 | 1.4 | 1175 | 35.4 |
| 14 | 1 | 420 | 950 | - | - | - | - | - | - | 1 | 420 | - | 950 | - |
| TOTAL | 116 | | | - | | | - | | | 116 | | | | |
| MEAN | | 407 | 874 | | - | - | | - | - | | 407 | 25.2 | 874 | 164. |
| MEAN AGE | 9.7 | | | | | | - | | | 9.7 | | | | |

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Table 19. Age composition of commercial whitefish for each seasonal period from area IE, 1987/88.

| | | WINTE | R | | SPRIN | IG | | FALL | | | | | | |
|----------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|------|-------|-------|-------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | - | | H(mm) | WEIGH | |
| (yr) | NO. | (mm) | (g) | NO. | (mm) | (9) | NO. | (mm) | (g) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | _ | | - | 2 | 373 | 650 | _ | - | - | 2 | 373 | 6.4 | 650 | 70.7 |
| A | 18 | 390 | 817 | 100 | 399 | 906 | - | - | - | 118 | 398 | 18.3 | 892 | 145.6 |
| 9 | 33 | 404 | 891 | 48 | 403 | 918 | - | *** | - | 81 | 403 | 16.7 | 907 | 132.9 |
| 10 | 30 | 408 | 888 | 25 | 413 | 960 | - | - | - | 55 | 410 | 18.7 | 921 | 146.8 |
| 11 | 29 | 426 | 1009 | 18 | 428 | 1042 | - | 199 | - | 47 | 426 | 18.2 | 1021 | 165.7 |
| 2 | 2 | 444 | 1175 | 3 | 423 | 1000 | - | - | - | 5 | 431 | 15.7 | 1070 | 164.3 |
| 13 | 2 | 440 | 1075 | 2 | 446 | 1300 | | - | - | 4 | 443 | 19.4 | 1188 | 242.8 |
| 14 | 3 | | 1300 | 1 | 407 | 950 | - | - | - | 4 | 452 | 40.8 | 1213 | 301.0 |
| 15 | - | - | - | 1 | 475 | 1350 | - | - | - | 1 | 475 | - | 1350 | - |
| TOTAL | 117 | | | 200 | | | - | | | 317 | | | | |
| MEAN | | 411 | 926 | 300 | 405 | 933 | | - | - | | 407 | 22.2 | 930 | 164.1 |
| MEAN AGE | 9.1 | | | 8.9 | | | - | | | 9.3 | | | | |

Table 20. Age composition of commercial whitefish for each seasonal period from area II, 1987/88.

| | | WINTE | R | | SPRIN | G | - | FALL | | | | | | |
|-------------|------|------------------------------|---------------------------|------|------------------------------|---------------------------|-----|------------------------------|---------------------------|------|----------------------|------|---------------|----------------------|
| AGE (yr) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | FOR LENGT MEAN | | WEIGH MEAN | SSED HT(g) SD. |
| 7 | 1 | 364 | 650 | 1 | 418 | 1000 | - | _ | - | 2 | 391 | 38.2 | 825 | 247. |
| 8 | 10 | 412 | 940 | 3 | 372 | 750 | - | - | - | 13 | 402 | 22.1 | 896 | 136. |
| 9 | 25 | 405 | 904 | 18 | 394 | 814 | - | - | - | 43 | 401 | 18.5 | 866 | 124.3 |
| 10 | 31 | 412 | 924 | 33 | 406 | 886 | - | - | - | 64 | 409 | 18.1 | 905 | 116.7 |
| 11 | 38 | 421 | 962 | 32 | 417 | 973 | - | - | - | 70 | 419 | 15.8 | 967 | 115. |
| 12 | 9 | 439 | 1117 | 11 | 425 | 1045 | _ | _ | - | 20 | 431 | 16.7 | 1078 | 174.3 |
| 13 | 4 | 432 | 1088 | 1 | 447 | 1150 | | - | - | 5 | 435 | 23.0 | 1100 | 136.9 |
| 14 | 1 | 463 | 1300 | _ | - | - | - | - | - | 1 | 463 | - | 1300 | - |
| 15 | - | - | - | 1 | 472 | 1300 | - | - | - | 1 | 472 | - | 1300 | - |
| TOTAL | 119 | | | 100 | | | - | | | 219 | | | | |
| MEAN | | 416 | 954 | | 410 | 923 | | - | - | | 413 | 20.9 | 940 | 144.3 |
| MEAN AGE | 10.2 | | | 10.4 | | | - | | | 10.3 | | | | |

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Table 21. Age composition of commercial whitefish for each seasonal period from area III, 1987/88.

| | * | WINTE | R | | SPRIN | IG | | FALL | | | | | | |
|----------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|------|------------|------|---------------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | - | FOR | K H(mm) | DRE: | SSED HT(g) |
| (yr) | NO. | | (9) | NO. | | (g) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | - | - | _ | 1 | 425 | 1050 | - | - | - | 1 | 425 | - | 1050 | - |
| 8 | - | - | - | 40 | 406 | 1023 | - | - | - | 40 | 406 | 17.7 | 1023 | 158. |
| 9 | - | - | - | 26 | 412 | 1094 | - | - | - | 26 | 412 | 16.1 | 1094 | 143.8 |
| 10 | - | - | - | 22 | 416 | 1109 | - | - | - | 22 | 416 | 20.9 | 1109 | 195.6 |
| 11 | - | ~ | - | 4 | 418 | 1288 | - | - | - | 4 | 418 | 42.4 | 1288 | 370.5 |
| 12 | - | - | - | 3 | 417 | 1150 | - | - | - | 3 | 417 | 18.9 | 1150 | 100.0 |
| 13 | - | - | - | 4 | 433 | 1200 | - | - | - | 4 | 433 | 8.7 | 1200 | 40.8 |
| 15 | - | - | - | 1 | 490 | 2050 | - | - | - | 1 | 490 | - | 2050 | - |
| 16 | - | - | - | 1 | 510 | 2000 | - | - | - | 1 | 510 | - | 2000 | - |
| 17 | - | - | - | 1 | 450 | 1650 | - | - | - | 1 | 450 | - | 1650 | - |
| TOTAL | - | | | 103 | | | - | | | 103 | | | | |
| MEAN | | - | _ | | 414 | 1106 | | - | - | | 414 | 23.2 | 1106 | 225.3 |
| MEAN AGE | - | | | 9.3 | | | - | | | 9.3 | | | | |

Table 22. Age composition of commercial whitefish for each seasonal period from area 1V, 1987/88.

| | | WINTE | | SPRING | | | | FALL | | | | | | |
|----------|------|----------------------|--------------------|--------|----------------------|--------------------|------|----------------------|--------------------|------|------|------------|------|---------------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | FOR | K H(mm) | DRE | SSED HT(g) |
| (yr) | NO. | | (9) | NO. | (mm) | (0) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 6 | - | - | - | | _ | - | 2 | 375 | 675 | 2 | 375 | 17.0 | 675 | 106.1 |
| 7 | - | - | - | 1 | 323 | 400 | 1 | 419 | 1000 | 2 | 371 | 67.9 | 700 | 424.3 |
| 8 | 2 | 357 | 575 | 5 | 352 | 520 | 11 | 392 | 786 | 18 | 377 | 26.5 | 689 | 177.5 |
| 9 | 4 | 365 | 613 | 19 | 373 | 687 | 22 | 400 | 843 | 45 | 385 | 26.1 | 757 | 164.3 |
| 10 | 20 | 387 | 800 | 25 | 390 | 820 | 22 | 396 | 875 | 67 | 391 | 18.3 | 832 | 125.7 |
| 11 | . 42 | 395 | 865 | 30 | 402 | 883 | 25 | 410 | 922 | 97 | 401 | 19.6 | 886 | 133.3 |
| 12 | 27 | 404 | 919 | 15 | 407 | 920 | 13 | 425 | 1085 | 55 | 410 | 22.6 | 958 | 208.1 |
| 13 | 16 | 414 | 988 | 1 | 399 | 950 | 3 | 425 | 917 | 20 | 415 | 13.0 | 975 | 99.3 |
| 14 | 3 | 426 | 1100 | 1 | 408 | 950 | - | - | - | 4 | 421 | 20.5 | 1063 | 160.1 |
| 15 | 1 | 453 | 1300 | - | - | - | - | - | - | 1 | 453 | - | 1300 | - |
| TOTAL | 115 | | | 97 | | | 99 | | | 311 | | | | |
| MEAN | | 398 | 880 | | 391 | 812 | | 405 | 896 | | 398 | 23.9 | 864 | 176.5 |
| MEAN AGE | 11.3 | 3 | | 10.4 | | | 10.1 | 1 | | 10.6 | | | | |

22

WINTER SPRING FALL MEAN TOTAL MEAN MEAN MEAN MEAN FORK FORK DRESSED FORK DR. FORK DR. DR. LENGTH(mm) WEIGHT(g) AGE LEN. WT. NO. (mm) (g) LEN. WT. NO. (mm) MEAN NO. (mm) (g) MEAN (yr) (9) NO. 938 160.1 9 10 11 12 13 14 15 16 413 938 413 15.5 409 5 409 24.7 880 120.4 880 415 17.3 144.9 415 885 13 885 13 944 122.3 18 418 944 18 418 15.5 19 433 1034 19 433 23.3 1034 146.3 19 440 1095 19 440 18.1 1095 143.3 444 10 444 28.7 1115 174.9 10 1115 441 1150 441 32.6 1150 247.8 2 538 1975 2 538 60.1 1975 813.2 TOTAL 98 431 235.2 MEAN 431 1035 29.1 1035

13.0

13.0

Table 23. Age composition of commercial whitefish for each seasonal period from area V. 1987/88.

MEAN AGE

Table 24. Length composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1987/88.

| LENGTH | | | FORK LE | NGTH(mm) | DRESSED | WEIGHT (p) |
|---------------|-------------|------|---------|----------|---------|------------|
| (mm) | NO. | × | MEAN | SD. | MEAN | SD. |
| 310-319 | 1 | - | 318 | - | 400 | - |
| 320-329 | 4 | 0.2 | 324 | 3.0 | 400 | 0.0 |
| 330-339 | 5 | 0.2 | 335 | 2.2 | 470 | 67.1 |
| 340-349 | 17 | 0.8 | 345 | 2.9 | 553 | 67.2 |
| 350-359 | 26 | 1.2 | 354 | 2.8 | 592 | 65.9 |
| 360-369 | 44 | 2.1 | 365 | 2.9 | 650 | 80.0 |
| 370-379 | 93 | 4.4 | 374 | 2.6 | 711 | 79.8 |
| 380-389 | 195 | 9.3 | 384 | 2.9 | 785 | 78.2 |
| 390-399 | 246 | 11.7 | 394 | 2.7 | 835 | 90.7 |
| 400-409 | 374 | 17.8 | 404 | 3.1 | 896 | 91.5 |
| 410-419 | 351 | 16.7 | 414 | 3.1 | 956 | 89.7 |
| 420-429 | 305 | 14.5 | 424 | 2.9 | 1017 | 107.2 |
| 430-439 | 186 | 8.9 | 433 | 3.0 | 1065 | 97.7 |
| 440-449 | 102 | 4.9 | 443 | 3.1 | 1119 | 123.7 |
| 450-459 | 65 | 3.1 | 454 | 3.3 | 1210 | 135.8 |
| 460-469 | 38 | 1.8 | 464 | 3.1 | 1288 | 139.2 |
| 470-479 | 20 | 1.0 | 474 | 3.4 | 1403 | 142.8 |
| 480-489 | 10 | 0.5 | 483 | 2.6 | 1565 | 264.6 |
| 490-499 | | 0.4 | 493 | 3.1 | 1650 | 205.3 |
| 500-509 | 3 | 0.1 | 504 | 3.5 | 1783 | 275.4 |
| 510-519 | 8 3 3 | 0.1 | 513 | 4.6 | 1890 | 208.1 |
| 580-589 | 1 | - | 580 | - | 2550 | - |
| TOTAL MEAN | 2097 | | 411 | 26.2 | 941 | 198.3 |

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Table 25. Length composition of commercial whitefish for each seasonal period from area IW, 1987/88.

| | | WINTE | | SPRING | | | | FALL | | | | | | |
|----------|-----|-------|------|--------|------|------|-----|------|------|-----|------|-------|------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTAL | | |
| LENGTH | | FORK | DR. | | FORK | DR. | | FORK | DR. | | FC | RK | DRE | SSED |
| INTERVAL | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | H(mm) | | HT(g) |
| (mm) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 340-349 | 2 | 347 | 575 | - | - | - | _ | - | _ | 2 | 347 | 2.1 | 575 | 106.1 |
| 350-359 | 2 | 358 | 550 | - | - | - | - | - | - | 2 | 358 | 0.7 | 550 | 0.0 |
| 360-369 | 5 | 366 | 690 | - | | - | | - | - | 5 | 366 | 2.3 | 690 | 89.4 |
| 370-379 | 13 | 373 | 673 | - | - | - | - | - | - | 13 | 373 | 2.4 | 673 | 72.5 |
| 380-389 | 21 | 385 | 748 | - | - | - | - | - | ~ | 21 | 385 | 3.0 | 748 | 53.6 |
| 390-399 | 25 | 395 | 756 | - | - | - | - | - | - | 25 | 395 | 3.0 | 756 | 80.8 |
| 400-409 | 32 | 404 | 838 | - | - | - | - | - | - | 32 | 404 | 2.8 | 838 | 64.8 |
| 410-419 | 39 | 413 | 905 | - | - | - | - | - | - | 39 | 413 | 2.8 | 905 | 64.7 |
| 420-429 | 26 | 423 | 929 | - | - | - | - | - | - | 26 | 423 | 2.6 | 929 | 55.1 |
| 430-439 | 18 | 433 | 1017 | _ | - | - | | - | - | 18 | 433 | 2.8 | 1017 | 80.4 |
| 440-449 | 13 | 443 | 1027 | - | - | - | - | | - | 13 | 443 | 2.7 | 1027 | 90.4 |
| 450-459 | 8 | 455 | 1163 | - | - | - | - | - | - | 8 | 455 | 3.2 | 1163 | 180.8 |
| 460-469 | 4 | 464 | 1150 | - | - | - | - | - | - | 4 | 464 | 3.9 | 1150 | 70.7 |
| 480-489 | 2 | 484 | 1525 | - | - | - | - | - | - | 2 | 484 | 4.9 | 1525 | 106.1 |
| TOTAL | 210 | | | - | | | - | | | 210 | | | | |
| MEAN | | 410 | 876 | | - | - | | - | - | 210 | 410 | 24.8 | 876 | 163.1 |

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| | | WINTE | | | SPRIN | | - | FALL | | | | **** | | |
|----------|-----|-------|-------------|-----|-------|-------------|-----|------|-------------|-----|------|-------|------|-------|
| LENGTH | | MEAN | MEAN DR. | | MEAN | MEAN DR. | | MEAN | MEAN DR. | | FC | TOTA | | SSED |
| INTERVAL | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | H(mm) | | HT(g) |
| (mm) | NO. | (mm) | (9) | NO. | (mm) | (0) | NO. | (mm) | (0) | NO. | MEAN | SD. | MEAN | SD |
| 340-349 | 1 | 345 | 500 | - | | - | - | _ | - | 1 | 345 | - | 500 | - |
| 350-359 | 1 | 357 | 600 | 2 | 354 | 650 | - | - | - | 3 | 355 | 2.5 | 633 | 28. |
| 360-369 | 2 | 363 | 575 | 4 | 366 | 625 | - | - | - | 6 | 365 | 3.2 | 608 | 86. |
| 370-379 | 12 | 374 | 696 | 11 | 375 | 741 | - | - | - | 23 | 374 | 2.7 | 717 | 61. |
| 380-389 | 20 | 384 | 760 | 28 | 384 | 802 | | - | - | 48 | 384 | 2.7 | 784 | 72. |
| 390-399 | 29 | 394 | 836 | 32 | 394 | 850 | - | - | - | 61 | 394 | 2.6 | 843 | 62. |
| 100-409 | 36 | 403 | 890 | 45 | 404 | 941 | - | | - | 81 | 403 | 2.9 | 919 | 76. |
| 110-419 | 32 | 414 | 938 | 38 | 414 | 996 | - | - | - | 70 | 414 | 3.0 | 969 | 74. |
| 120-429 | 37 | 424 | 1012 | 20 | 424 | 1015 | - | - | - | 57 | 424 | 2.5 | 1013 | 94. |
| 30-439 | 21 | 433 | 1081 | 18 | 434 | 1097 | - | - | - | 39 | 433 | 2.8 | 1088 | 93. |
| 40-449 | 8 | 442 | 1119 | 8 | 443 | 1163 | - | day. | - | 16 | 443 | 2.9 | 1141 | 124. |
| 50-459 | 6 | 454 | 1200 | - | - | - | - | - | - | 6 | 454 | 2.3 | 1200 | 114. |
| 60-469 | - | - | - | 2 | 463 | 1500 | - | - | - | 2 | 463 | 3.5 | 1500 | 70. |
| 70-479 | 1 | 470 | 1300 | 1 | 475 | 1350 | - | - | - | 2 | 473 | 3.5 | 1325 | 35. |
| 80-489 | 2 | 482 | 1500 | - | - | - | - | - | - | 2 | 482 | 2.1 | 1500 | 282. |
| 190-499 | 2 | 494 | 1650 | - | - | - | - | - | - | 2 | 494 | 5.7 | 1650 | 70. |
| TOTAL | 210 | | | 209 | | | - | | | 419 | | | | |
| EAN | | 411 | 933 | | 406 | 935 | | - | - | | 408 | 22.3 | 934 | 166. |

Table 26. Length composition of commercial whitefish for each seasonal period from area IE, 1987/88.

26

WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL LENGTH FORK DR. FORK DR. FORK DR. FORK DRESSED INTERVAL LEN. WT. LEN. WT. LENGTH(mm) LEN. WT. WEIGHT(g) (mm) NO. (mm) NO. (mm) NO. (mm) MEAN SD. (9) (9) (9) NO. MEAN SD. 330-339 337 550 337 550 340-349 2 346 600 2 346 1.4 600 141.4 500 5 350-359 352 355 600 354 3.7 580 57.0 360-369 2 365 650 366 675 6 366 1.4 667 40.8 370-379 375 656 11 374 745 20 375 2.7 705 85.7 380-389 21 385 769 14 384 786 35 385 3.3 776 82.6 390-399 18 393 764 22 394 40 75 394 827 2.6 799 93.0 38 400-409 404 845 37 404 854 404 3.2 849 71.9 410-419 46 414 905 40 86 70 414 936 414 3.0 920 73.7 420-429 31 424 953 39 424 1005 424 2.8 982 98.6 430-439 21 434 1021 21 433 1069 42 433 2.9 1045 87.5 440-449 13 444 444 1123 443 1070 3.0 1108 104.7 10 450-459 454 1158 454 454 1163 3.7 1160 107.5 460-469 462 1238 466 1250 464 2.9 1243 117.0 470-479 2 1375 2 2.1 474 474 1375 106.1 TOTAL 210 209 419 MEAN 412 899 410 916 411 22.4 908 155.5

Table 27. Length composition of commercial whitefish for each seasonal period from area II, 1987/88.

27

WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL LENGTH FORK DR. FORK DR. FORK DR. FORK DRESSED INTERVAL LEN. WT. LEN. WT. LEN. WT. MEAN SD. WEIGHT(g) (mm) NO. (mm) (0) NO. (mm) (0) NO. (mm) (9) NO. MEAN SD. 350-359 2 350 575 2 350 0.0 575 106.1 360-369 2 360 700 2 360 0.0 700 141.4 370-379 375 913 375 3.3 913 62.9 380-389 18 384 892 18 384 2.7 892 86.2 390-399 23 393 963 23 393 3.1 963 93.2 400-409 30 401 1022 30 401 2.4 1022 144.2 410-419 48 412 1063 48 412 2.6 1063 88.4 420-429 34 421 1163 34 421 2.3 1163 90.7 430-439 18 431 1183 18 431 1.6 1183 80.4 440-449 13 441 1296 13 441 2.2 1296 134.6 450-459 450 1440 5 450 0.0 1440 124.5 460-469 462 1500 462 2.9 1500 100.0 470-479 473 1600 473 3.5 1600 141.4 480-489 1850 483 2 483 4.2 1850 212.1 490-499 492 1817 3 492 2.9 1817 202.1 510-519 510 2010 2 510 0.0 2010 14.1 TOTAL 209 209 MEAN 414 1109 414 25.5 1109 232.7

Table 28. Length composition of commercial whitefish for each seasonal period from area III, 1987/88.

Table 29. Length composition of commercial whitefish for each seasonal period from area IV, 1987/88.

| NO. 3 2 2 4 8 7 27 | 3 323 2 333 2 345 4 354 3 365 7 374 7 384 3 394 | MEAN DR. WT. (g) 400 450 500 588 625 721 765 828 | NO. 2 3 4 9 9 | MEAN FORK LEN. (mm) 337 347 355 366 375 385 | MEAN DR. WT. (g) 450 550 613 678 683 781 | NO. 4 4 12 13 24 31 | 324 335 345 354 365 374 | TOTA ORK 'H(mm) SD. 3.0 2.3 3.3 2.3 3.2 2.5 | DRE | SSED SD. SD. 57.7 54.2 76.4 80.6 |
|----------------------------------|--|---|------------------------------|--|---|--------------------------------|--|--|---|--|
| 3 2 2 4 8 7 27 | LEN. (mm) 3 323 2 333 2 345 3 365 3 374 3 384 3 394 | WT. (g) 400 450 500 588 625 721 765 | 2 3 4 9 9 | LEN. (mm) 337 347 355 366 375 385 | WT. (g) 450 550 613 678 683 | 4 4 12 13 24 31 | 324 335 345 354 365 374 | 3.0 2.3 3.3 2.3 3.2 | WEIG MEAN 400 450 546 600 646 | 0.0 57.7 54.2 76.4 |
| 3 2 2 4 8 7 27 | 3 323 2 333 2 345 4 354 3 365 7 374 7 384 3 394 | 400 450 500 588 625 721 765 | 2 3 4 9 9 | (mm) 337 347 355 366 375 385 | 450 550 613 678 683 | 4 4 12 13 24 31 | 324 335 345 354 365 374 | 3.0 2.3 3.3 2.3 3.2 | 400 450 546 600 646 | 0.0 57.7 54.2 76.4 |
| 3 2 2 4 8 7 27 | 3 323 2 333 2 345 4 354 3 365 7 374 7 384 3 394 | 400 450 500 588 625 721 765 | 2 3 4 9 9 | 337 347 355 366 375 385 | 450 550 613 678 683 | 4 4 12 13 24 31 | 324 335 345 354 365 374 | 3.0 2.3 3.3 2.3 3.2 | 400 450 546 600 646 | 0.0 57.7 54.2 76.4 |
| 2 2 4 8 7 27 | 333 345 354 365 374 384 394 | 450 500 588 625 721 765 | 3 4 9 9 | 337 347 355 366 375 385 | 450 550 613 678 683 | 12 13 24 31 | 335 345 354 365 374 | 2.3 3.3 2.3 3.2 | 450 546 600 646 | 57.7 54.2 76.4 |
| 2 4 8 7 27 | 345 354 365 374 384 394 | 500 588 625 721 765 | 3 4 9 9 | 347 355 366 375 385 | 550 613 678 683 | 13 24 31 | 345 354 365 374 | 3.3 2.3 3.2 | 546 600 646 | 54.2 76.4 |
| | 354 365 374 384 394 | 588 625 721 765 | 9 21 | 355 366 375 385 | 613 678 683 | 13 24 31 | 354 365 374 | 3.2 | 646 | 76.4 |
| | 365 374 384 394 | 625 721 765 | 9 21 | 366 375 385 | 678 683 | 31 | 365 374 | 3.2 | 646 | |
| | 374 384 394 | 721 765 | 9 21 | 375 385 | 683 | 31 | 374 | | | 80.6 |
| | 384 | 765 | 21 | 385 | | | | 2.5 | 703 | |
| | 394 | | | | 781 | 70 | | | 103 | 57.6 |
| 23 | | 828 | | | | 70 | 384 | 2.8 | 774 | 63.0 |
| | | | 24 | 394 | 821 | 86 | 394 | 2.5 | 840 | 69.1 |
| 28 | 405 | 905 | 56 | 403 | 888 | 131 | 404 | 3.3 | 901 | 68.2 |
| 27 | 414 | 946 | 30 | 417 | 953 | 80 | 415 | 3.3 | 959 | 76.6 |
| 25 | 425 | 1028 | 23 | 426 | 993 | 77 | 424 | 2.6 | 1026 | 92.7 |
| 10 | 434 | 1025 | 13 | 434 | 1042 | 31 | 434 | 3.1 | 1042 | 76.5 |
| 15 | 443 | 1090 | 4 | 445 | 1050 | 23 | 443 | 2.9 | 1100 | 90.5 |
| 13 | 454 | 1212 | 6 | 456 | 1142 | 21 | 454 | 3.5 | 1200 | 114.0 |
| 8 | 463 | 1288 | 1 | 464 | 1200 | 10 | 463 | 2.7 | 1285 | 88.3 |
| 4 | 477 | 1488 | 2 | 470 | 1275 | 6 | 474 | 4.1 | 1417 | 199.2 |
| 2 | 485 | 1700 | 1 | 483 | 1300 | 3 | 484 | 1.2 | 1567 | 305.5 |
| 1 | 490 | 1650 | - | - | - | 1 | 490 | - | 1650 | - |
| - | | - | 2 | 502 | 1850 | 2 | 502 | 0.0 | 1850 | 353.€ |
| 1 | 518 | 1650 | - | - | - | 1 | 518 | - | 1650 | - |
| 210 | | | 210 | | | 630 | | | | 198.9 |
| - | - 1 | 210 | 1 518 1650 | 210 210 | 210 210 | 210 210 | 210 210 630 | 210 210 630 | 210 210 630 | 210 210 630 |

29

WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL FORK DRESSED LENGTH FORK DR. FORK DR. FORK DR. WEIGHT(g) INTERVAL LEN. WT. LEN. WT. LEN. WT. MEAN SD. NO. (mm) (mm) NO. (mm) (9) (g) NO. (mm) (0) NO. MEAN 310-319 318 400 318 400 350-359 357 550 357 550 360-369 363 600 363 600 370-379 675 2.1 35.4 374 675 2 374 2 380-389 817 388 0.6 817 28.9 3 388 3 390-399 11 395 795 395 3.1 795 90.7 400-409 25 404 866 25 404 3.0 866 70.3 410-419 28 415 920 28 415 3.1 920 79.7 420-429 41 1000 41 425 1000 425 3.1 85.9 430-439 38 435 1047 38 435 2.9 1047 99.3 440-449 19 445 1074 19 445 3.6 1074 56.2 450-459 15 453 1210 15 453 2.9 1210 103.9 460-469 12 464 1275 12 464 3.7 1275 137.3

475

485

508

580

429

2 494

210

1369

1200

1400

1650

2550

1025

475

485

494

508

580

429 27.4

2

210

3.3

1.4

1369

1200

1400

1650

2550

1025 213.5

88.4

0.0

Table 30. Length composition of commercial whitefish for each seasonal period from area V, 1987/88.

470-479

480-489

490-499

500-509

580-589

TOTAL

MEAN

Table 31. Weight composition by market weight intervals for lake whitefish from commercial plant samples, Great Slave Lake, 1988/89.

| MARKET WEIGHT INTERVAL (DRESSED) | NO. | IE S | ND. | IW W | NO. | N II | NO. | 111 | ND. | 1V % | NO. | * | NO. | TAL % |
|--|------|------|-----|------|-----|------|-----|-----|-----|------|-----|----|------|-------|
| NO MARKET (< 0.45 kg) | - | - | - | - | - | - | 2 | 1 | 2 | - | 2 | - | 6 | - |
| SMALL (0.45-0.69 kg) | 18 | 4 | 25 | 12 | 23 | 5 | 10 | 5 | 69 | 11 | 6 | 3 | 151 | 7 |
| MEDIUM (0.70-1.39 kg) | 395 | 95 | 183 | 88 | 363 | 86 | 182 | 92 | 549 | 87 | 191 | 91 | 1863 | 89 |
| LARGE (1.40-1.80 kg) | 4 | • | 1 | - | 31 | 7 | э | 2 | 7 | 1 | . 6 | 3 | 52 | 2 |
| JUMBC (> 1.80 kg) | - | - | • | • | 3 | - | 1 | - | 2 | - | 4 | 2 | 10 | - |
| TOTAL | 417. | | 209 | | 420 | | 198 | | 629 | | 209 | | 2082 | |

3

Table 32. Age composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1988/89.

| AGE | | | | NGTH(mm) | | WEIGHT (g) |
|--------------|------|------|------|----------|------|------------|
| (yr) | NO. | % | MEAN | SD. | MEAN | SD. |
| 6 | 2 | 0.2 | 389 | 17.7 | 825 | 35.4 |
| 6 | 10 | 0.9 | 370 | 24.8 | 675 | 173.6 |
| 8 9 10 | 50 | 4.7 | 387 | 19.5 | 765 | 120.1 |
| 9 | 201 | 19.0 | 399 | 19.6 | 828 | 143.3 |
| 10 | 229 | 21.7 | 406 | 26.5 | 867 | 185.9 |
| 11 | 229 | 21.7 | 412 | 23.7 | 900 | 161.9 |
| 12 | 191 | 18.1 | 418 | 24.4 | 937 | 186.3 |
| 13 | 74 | 7.0 | 428 | 26.6 | 1009 | 187.7 |
| 14 | 41 | 3.9 | 434 | 27.5 | 1057 | 209.6 |
| 15 | 18 | 1.7 | 450 | 28.1 | 1215 | 225.7 |
| 16 | | 0.6 | 452 | 28.5 | 1083 | 143.8 |
| 17 | 6 2 | 0.2 | 501 | 31.1 | 1925 | 459.6 |
| 18 | 1 | - | 568 | - | 2100 | - |
| 19 | 2 | 0.2 | 511 | 83.4 | 1950 | 989.9 |
| TOTAL | 1056 | | | | | |
| MEAN AGE 10 | | | 411 | 28.3 | 902 | 205.7 |

Table 33. Age composition of commercial whitefish for each seasonal period from area IW, 1988/89.

| | | WINTE | R | SPRING | | | | FALL | | | | | | |
|----------|------|----------------------|--------------------|--------|----------------------|--------------------|-----|----------------------|--------------------|------|------|-------|-------|---------------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | | H(mm) | WEIGH | SSED HT(g) |
| (yr) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | 1 | 380 | 650 | - | - | - | - | - | - | 1 | 380 | _ | 650 | |
| 9 | 32 | 394 | 764 | - | - | - | 400 | - | - | 32 | 394 | 13.7 | 764 | 93.5 |
| 10 | 34 | 402 | 804 | - | - | - | - | | - | 34 | 402 | 17.6 | 804 | 104.7 |
| 11 | 20 | 419 | 928 | - | - | - | - | - | - | 20 | 419 | 18.6 | 928 | 139. |
| 12 | 10 | 422 | 925 | - | - | - | - | - | - | 10 | 422 | 9.8 | 925 | 95.0 |
| 13 | 7 | 450 | 1121 | - | - | - | - | - | · | 7 | 450 | 22.7 | 1121 | 143.9 |
| 15 | 3 | 438 | 1100 | - | - | - | • | - | - | 1 | 438 | - | 1100 | • |
| TOTAL | 105 | | | | | | - | | | 105 | | | | |
| MEAN | | 408 | 850 | | - | - | | - | | | 408 | 22.4 | 850 | 149.0 |
| MEAN AGE | 10.3 | 1 | | - | | | - | | | 10.3 | | | | |

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Table 34. Age composition of commercial whitefish for each seasonal period from area IE. 1988/89.

| | | WINTE | R | | SPRIN | G | | FALL | | | | | | |
|----------|------|-------|------|------|-------|------|-----|------|------|------|-------|-------|-------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTAL | | |
| | | FORK | DR. | | FORK | DR. | | FORK | DR. | | FOR | K | DRE | SSED |
| AGE | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | LENGT | H(mm) | WEIGH | HT(g) |
| (yr) | NO. | (mm) | (g) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | 1 | 352 | 550 | - | - | - | - | - | - | 1 | 352 | - | 550 | - |
| a | 3 | 382 | 733 | 9 | 376 | 700 | - | - | - | 12 | 377 | 13.4 | 708 | 59.7 |
| 9 | 31 | 391 | 763 | 38 | 404 | 928 | - | - | - | 69 | 398 | 21.4 | 854 | 156.8 |
| 10 | 31 | 408 | 868 | 20 | 405 | 915 | - | - | - | 51 | 407 | 19.8 | 886 | 140.0 |
| 11 | 23 | 411 | 854 | 23 | 421 | 974 | | - | - | 46 | 416 | 18.0 | 914 | 139.3 |
| 12 | 14 | 425 | 979 | 12 | 431 | 1088 | - | - | - | 26 | 428 | 19.0 | 1029 | 172.7 |
| 13 | 4 | 430 | 938 | 1 | 434 | 1100 | - | - | - | 5 | 431 | 24.2 | 970 | 135.1 |
| 14 | | - | - | 2 | 468 | 1325 | - | | - | 2 | 468 | 4.2 | 1325 | 35.4 |
| 15 | - | - | - | 1 | 470 | 1550 | - | - | - | 1 | 470 | - | 1550 | - |
| TOTAL | 107 | | | 106 | | | - | | | 213 | | | | |
| MEAN | | 405 | 845 | | 411 | 949 | | - | ~ | | 408 | 24.4 | 897 | 173.1 |
| MEAN AGE | 10.2 | 2 | | 10.1 | | | - | | | 10.1 | | | | |

Table 35. Age composition of commercial whitefish for each seasonal period from area II, 1988/89.

| | | WINTE | R | | SPRIN | IG | | FALL | | | | | | |
|----------|-----|-------|-------------|-----|-------|-------------|-----|------|-------------|-----|------|-------|------|-------|
| | | MEAN | MEAN DR. | | MEAN | MEAN DR. | | MEAN | MEAN DR. | | FOR | TOTAL | DRE | SSED |
| AGE | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | H(mm) | | HT(g) |
| (yr) | NO. | (mm) | (g) | NO. | (mm) | (0) | NO. | (mm) | (9), | NO. | MEAN | SD. | MEAN | SD. |
| 6 | 1 | 376 | 850 | 1 | 401 | 800 | - | - | _ | 2 | 389 | 17.7 | 825 | 35.4 |
| 7 | 4 | 390 | 813 | 2 | 373 | 725 | - | - | - | 6 | 384 | 14.6 | 783 | 108.0 |
| 8 | 1.4 | 403 | 832 | 12 | 389 | 779 | - | - | - | 26 | 396 | 19.8 | 808 | 135.4 |
| 9 | 28 | 411 | 900 | 34 | 395 | 793 | ~ | - | - | 62 | 402 | 20.4 | 841 | 156.9 |
| 10 | 27 | 438 | 1081 | 28 | 413 | 891 | - | - | - | 55 | 425 | 27.4 | 985 | 219.0 |
| 11 | 16 | 440 | 1091 | 26 | 422 | 927 | - | - | - | 42 | 429 | 22.0 | 989 | 195.2 |
| 12 | 13 | 458 | 1246 | 5 | 447 | 1050 | - | - | - | 18 | 455 | 23.7 | 1192 | 295.7 |
| 13 | 2 | 481 | 1500 | 1 | 449 | 1000 | | - | - | 3 | 470 | 19.4 | 1333 | 293.0 |
| 4 | 1 | 509 | 1800 | 000 | - | - | - | - | - | 1 | 509 | - | 1800 | - |
| 16 | - | - | - | 3 | 436 | 1050 | - | - | - | 1 | 436 | - | 1050 | - |
| 9 | ~ | - | - | 3 | 570 | 2650 | - | - | - | 1 | 570 | - | 2650 | - |
| TOTAL | 106 | | | 111 | | | _ | | | 217 | | | | |
| MEAN | | 428 | 1025 | | 410 | 879 | | - | - | | 418 | 31.6 | 950 | 259.4 |
| MEAN AGE | 9.8 | | | 9.9 | | | - | | | 9.8 | | | 500 | -50. |

S

Table 36. Age composition of commercial whitefish for each seasonal period from area III, 1988/89.

| | | WINTE | R | - | SPRIN | G | | FALL | | | | | | |
|----------|------|----------------------|--------------------|-----|----------------------|--------------------|-----|--------------|--------------------|------|------|---------------------|------|---------------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | FORK LEN. | MEAN DR. WT. | | FOR | TOTAL K H(mm) | DRE: | SSED HT(g) |
| (yr) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | 1 | 335 | 450 | | - | - | - | - | - | 1 | 335 | - | 450 | - |
| В | 8 | 372 | 744 | - | - | - | - | - | - | 8 | 372 | 7.6 | 744 | 98. |
| 9 | 26 | 396 | 815 | - | - | - | - | - | - | 26 | 396 | 15.0 | 815 | 86. |
| 10 | 25 | 408 | 896 | - | - | - | - | - | - | 25 | 408 | 19.9 | 896 | 136. |
| 11 | 17 | 418 | 929 | - | - | - | - | - | - | 17 | 418 | 24.4 | 929 | 149. |
| 12 | 14 | 428 | 957 | - | - | - | - | - | - | 14 | 428 | 17.7 | 957 | 145. |
| 13 | 2 | 459 | 1150 | - | | - | - | - | - | 2 | 459 | 26.2 | 1150 | 212. |
| 14 | 3 | 459 | 1283 | - | - | - | - | - | - | 3 | 459 | 17.8 | 1283 | 104. |
| 15 | 1 | 433 | 1300 | - | - | - | | - | - | 1 | 433 | - | 1300 | |
| 15 | 1 | 523 | 2250 | - | - | - | - | - | - | 1 | 523 | - | 2250 | - |
| TOTAL | 98 | | | - | | | - | | | 98 | | | | |
| MEAN | | 410 | 907 | | - | - | | - | - | | 410 | 29.4 | 907 | 217. |
| MEAN AGE | 10.3 | 3 | | - | | | | | | 10.3 | | | | |

Table 37. Age composition of commercial whitefish for each seasonal period from area IV, 1988/89.

| | | WINTE | R | | SPRI | NG | | FALL | | | | | | |
|----------|------|-------|------|----|--------|------|------|------|------|------|------|-------|-------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTAL | | |
| | | FORK | DR. | | FOR | | | FORK | DR. | | FOR | | | SSED |
| AGE | | LEN. | WT. | | LEN. | WT, | | LEN. | WT. | | | H(mm) | WEIGH | |
| (yr) | NO. | (mm) | (9) | NO | . (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 8 | 1 | 362 | 600 | | | - | - | - | | 1 | 362 | - | 600 | - |
| 9 | 4 | 396 | 800 | | 1 382 | 800 | 4 | 377 | 688 | 9 | 386 | 15.7 | 750 | 100.0 |
| 10 | 21 | 383 | 717 | | 8 378 | | 17 | 385 | 747 | 46 | 383 | 20.9 | 726 | 144.8 |
| 11 | 31 | 391 | 774 | 2 | 0 386 | | 30 | 409 | 912 | 81 | 397 | 21.0 | 826 | 137.4 |
| 12 | 31 | 400 | 805 | | 9 402 | | 36 | 417 | 950 | 106 | 407 | 20.3 | 872 | 135.2 |
| 13 | 10 | 418 | 950 | | 1 414 | | 9 | 426 | 1044 | 40 | 418 | 17.6 | 964 | 115.5 |
| 14 | 3 | 419 | 867 | 1 | 3 417 | | 5 | 432 | 1080 | 21 | 421 | 17.9 | 967 | 127.8 |
| 15 | 1 | 452 | 1050 | | 3 439 | 1190 | 3 | 482 | 1483 | 7 | 459 | 28.2 | 1296 | 236.6 |
| 16 | 1 | 452 | 1050 | | | - | 2 | 485 | 1250 | 3 | 474 | 21.5 | 1183 | 125.8 |
| 17 | - | - | - | | | - | 1 | 479 | 1600 | 1 | 479 | - | 1600 | - |
| 19 | - | - | • | | 1 452 | 1250 | - | - | - | 1 | 452 | - | 1250 | - |
| TOTAL | 103 | | | 10 | 6 | | 107 | | | 316 | | | | |
| MEAN | | 397 | 796 | | 403 | 869 | | 413 | 938 | | 404 | 26.0 | 868 | 176.1 |
| MEAN AGE | 11.4 | 1 | | 12 | . 2 | | 11.7 | 7 | | 11.8 | | | | |

Table 38. Age composition of commercial whitefish for each seasonal period from area V, 1988/89.

| | | WINTE | R | | SPRIN | G | | FALL | | | | | | |
|----------|---------|-------|------|-----|-------|------|------|------|------|------|------|-------|-------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTAL | | |
| | | FORK | DR. | | FORK | DR. | | FORK | DR. | | FOR | | | SSED |
| AGE | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | H(mm) | WEIGH | |
| (yr) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (g) | NO. | MEAN | SD. | MEAN | SD. |
| 7 | - | - | - | | - | - | 1 | 330 | 400 | 1 | 330 | - | 400 | |
| B | - | - | - | - | - | - | 3 | 397 | 733 | 3 | 397 | 9.5 | 733 | 104.1 |
| 9 | - | - | - | - | _ | - | 3 | 434 | 1000 | 3 | 434 | 8.5 | 1000 | 173.2 |
| 10 | - | - | ole | - | - | - | 18 | 415 | 889 | 18 | 415 | 27.6 | 889 | 203.3 |
| 11 | - | - | - | - | - | - | 23 | 420 | 920 | 23 | 420 | 19.4 | 920 | 147.5 |
| 2 | Gas Gas | - | - | - | - | - | 17 | 422 | 921 | 17 | 422 | 15.4 | 921 | 122.5 |
| 13 | - | - | - | - | _ | _ | 17 | 432 | 1006 | 17 | 432 | 33.5 | 1006 | 262.7 |
| 4 | - | - | - | - | - | - | 14 | 440 | 1054 | 1.4 | 440 | 26.8 | 1054 | 172.6 |
| 5 | - | - | - | - | - | - | 8 | 443 | 1106 | 8 | 443 | 31.3 | 1106 | 191.7 |
| 6 | - | 694 | - | 90 | - | _ | 2 | 426 | 950 | 2 | 426 | 4.9 | 950 | 70.7 |
| 18 | - | - | - | - | * | - | 1 | 568 | 2100 | 1 | 568 | - | 2100 | - |
| TOTAL | - | | | - | | | 107 | | | 107 | | | | |
| MEAN | | - | - | | - | - | | 426 | 964 | | 426 | 30.8 | 964 | 228.1 |
| MEAN AGE | - | | | | | | 12.0 | | | 12.0 | | | 504 | |

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Table 39. Length composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1988/89.

| LENGTH | | | FORK LEI | NGTH(mm) | DRESSED | WEIGHT (g) |
|---------------|------|------|----------|----------|---------|------------|
| (mm) | NO. | % | MEAN | SD. | MEAN | SD. |
| 320-329 | 1 | - | 322 | - | 400 | - |
| 330-339 | 5 | 0.2 | 332 | 2.3 | 500 | 117.3 |
| 340-349 | 9 | 0.4 | 344 | 3.6 | 522 | 103.4 |
| 350-359 | 28 | 1.3 | 353 | 3.1 | 566 | 57.8 |
| 360-369 | 46 | 2.2 | 364 | 3.1 | 628 | 72.0 |
| 370-379 | 128 | 6.1 | 374 | 2.9 | 694 | 62.9 |
| 380-389 | 219 | 10.5 | 384 | 3.0 | 751 | 74.0 |
| 390-399 | 263 | 12.6 | 394 | 3.0 | 797 | 74.0 |
| 400-409 | 355 | 17.1 | 404 | 3.0 | 849 | 69.0 |
| 410-419 | 300 | 14.4 | 414 | 2.8 | 910 | 79.6 |
| 420-429 | 233 | 11.2 | 424 | 2.8 | 960 | 84.0 |
| 430-439 | 166 | 8.0 | 434 | 3.0 | 1019 | 96.5 |
| 440-449 | 112 | 5.4 | 444 | 3.0 | 1088 | 105.3 |
| 450-459 | 87 | 4.2 | 454 | 3.0 | 1168 | 139.3 |
| 460-469 | 54 | 2.6 | 464 | 2.9 | 1219 | 129.0 |
| 470-479 | 31 | 1.5 | 474 | 3.0 | 1344 | 134.0 |
| 480-489 | 15 | 0.7 | 484 | 3.1 | 1413 | 174.7 |
| 490-499 | 14 | 0.7 | 496 | 2.6 | 1546 | 184.5 |
| 500-509 | 4 | 0.2 | 506 | 4.3 | 1650 | 264.6 |
| 510-519 | 3 | 0.1 | 512 | 2.9 | 1617 | 57.7 |
| 520-529 | 3 | 0.1 | 526 | 2.9 | 2233 | 375.3 |
| 540-549 | 1 | - | 540 | - | 2050 | - |
| 550-559 | 1 | - | 550 | - | 2600 | - |
| 560-569 | 2 | - | 565 | 4.2 | 2150 | 70.7 |
| 570-579 | 1 | - | 570 | - | 2650 | - |
| 580-589 | 1 | • | 584 | - | 2700 | - |
| TOTAL MEAN | 2082 | | 412 | 29.5 | 907 | 215.1 |

36

70.1

122.5

1233 115.5

1400 132.3

858 165.2

1041

1150

WINTER SPRING FALL TOTAL MEAN MEAN MEAN MEAN MEAN MEAN FORK DRESSED LENGTH FORK DR. FORK DR. FORK DR. LENGTH(mm) INTERVAL LEN. WT. LEN. WT. LEN. WT. WEIGHT(g) MEAN SD. NO. (mm) NO. MEAN SD. (mm) (9) NO. (mm) (0) NO. (mm) (9) 350-359 3 354 533 3 354 3.6 533 28.9 366 575 35.4 360-369 2 366 575 0.7 370-379 17 375 659 17 375 3.2 659 53.7 696 25 383 3.0 53.9 380-389 25 383 696 390-399 26 394 767 26 394 3.0 767 52.8 35 404 35 404 830 48.8 400-409 830 3.1 410-419 36 415 878 36 415 2.9 878 51.3 420-429 20 423 950 20 423 2.6 950 72.5 430-439 22 434 1007 22 434 3.3 1007 77.6

443

455

462

495

409 25.3

2.6

2.9

2.6

3.5

11

6

3

3

209

Table 40. Length composition of commercial whitefish for each seasonal period from area IW, 1988/89.

440-449

450-459

460-469

490-499

TOTAL

MEAN

11 443

3

3 495

209

455

462

409

1041

1150

1233

1400

858

31

Table 41. Length composition of commercial whitefish for each seasonal period from area IE, 1988/89.

| | | WINTE | | | SPRIN | | | MEAN | MEAN | | | TOTAL | | |
|---------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|--------------|------------|-----|-------------|-------|--------|---------------|
| LENGTH | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | FORK LEN. | DR. WT. | - | FO LENGT | RK | DRE | SSED HT(g) |
| (mm) | NO. | (mm) | (g) | NO. | (mm) | (0) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 330-339 | | | | 1 | 330 | 700 | - | - | - | 1 | 330 | - | 700 | - |
| | _ | - | - | 2 | 348 | 675 | - | - | - | 2 | 348 | 0.0 | 675 | 35.4 |
| 340-349 | 3 | 355 | 617 | 2 | 357 | 625 | - | - | | 5 | 355 | 2.3 | 620 | 57.0 |
| 350-359 | 2 | 360 | 575 | 5 | 366 | 710 | - | - | * | 7 | 364 | 3.4 | 671 | 69.9 |
| 360-369 | 16 | 375 | 694 | 15 | 374 | 747 | - | - | - | 31 | 374 | 2.8 | 719 | 66.7 |
| 370-379 | | 384 | 732 | 25 | 384 | 790 | - | - | - | 47 | 384 | 3.0 | 763 | 74.1 |
| 380-389 | 22 | | 778 | 32 | 394 | 856 | - | - | _ | 64 | 394 | 3.1 | 817 | 78. |
| 390-399 | 32 | 394 | | 36 | 404 | 885 | _ | _ | - | 71 | 404 | 2.8 | 860 | 67.4 |
| 400-409 | 35 | 404 | 834 874 | 36 | 414 | 951 | - | - | - | 61 | 414 | 3.0 | 920 | 82.3 |
| 410-419 | 25 | 414 | | 21 | 424 | 1002 | - | _ | - | 52 | 424 | 2.8 | 956 | 99.3 |
| 420-429 | 31 | 423 | 924 | 13 | | 1050 | _ | _ | _ | 32 | 432 | 2.5 | 1020 | 92.3 |
| 430-439 | 19 | 433 | 1000 | | 432 | 1156 | _ | _ | _ | 17 | 443 | 2.4 | 1082 | 114.5 |
| 440-449 | 9 | 442 | 1017 | 8 | 444 | | _ | - | - | 13 | 454 | 3.7 | 1227 | 148. |
| 450-459 | 6 | 455 | 1158 | | 453 | 1286 | - | _ | _ | 7 | 465 | 3.1 | 1229 | 111.3 |
| 460-469 | 4 | 465 | 1200 | 3 | 465 | 1267 | _ | _ | _ | 6 | 471 | 1.3 | 1260 | 194.9 |
| 470-479 | 3 | 471 | 1133 | 2 | 471 | 1450 | | _ | _ | 1 | 480 | - | 1350 | - |
| 480-489 | - | - | - | 1 | 480 | 1350 | - | _ | _ | , | 497 | - | 1750 | - |
| 490-499 | 1 | 497 | 1750 | - | - | • | | - | _ | | 497 | | .,,,,, | |
| TOTAL | 208 | | | 209 | | | - | | | 417 | | | 800 | 184 1 |
| MEAN | 200 | 409 | 865 | | 406 | 920 | | - | - | | 408 | 24.8 | 892 | 164. |

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Table 42. Length composition of commercial whitefish for each seasonal period from area II, 1988/89.

| | | WINTE | R | | SPRIN | IG | | FALL | | | | | | |
|----------|-----|-------|------|-----|-------|------|-----|--------|--------|-----|------|-------|------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTAL | | |
| LENGTH | | FORK | DR. | | FORK | DR. | | FORK | DR. | | FC | RK | DRE | SSED |
| INTERVAL | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | H(mm) | | HT(g) |
| (mm) | NO. | (mm) | (9) | NO. | (mm) | (8) | NO. | (mm) | (g) | NO. | MEAN | SD. | MEAN | SD. |
| 340-349 | 1 | 346 | 500 | - | - | - | _ | _ | - | 1 | 346 | - | 500 | - |
| 350-359 | - | - | - | 4 | 353 | 588 | - | | - | 4 | 353 | 2.9 | 588 | 47.9 |
| 360-369 | 1 | 362 | 500 | 6 | 364 | 667 | - | - | - | 7 | 364 | 3.6 | 643 | 83.8 |
| 370-379 | 4 | 375 | 700 | 12 | 374 | 696 | - | - | - | 16 | 374 | 3.4 | 697 | 64.5 |
| 380-389 | 14 | 385 | 764 | 26 | 385 | 748 | - | - | - | 40 | 385 | 3.3 | 754 | 77.9 |
| 390-399 | 21 | 394 | 760 | 30 | 395 | 797 | - | - | · | 51 | 394 | 2.9 | 781 | 66.3 |
| 400-409 | 30 | 404 | 837 | 40 | 404 | 831 | - | - | - | 70 | 404 | 3.3 | 834 | 65.8 |
| 410-419 | 23 | 414 | 909 | 33 | 415 | 880 | _ | - | - | 56 | 414 | 2.9 | 892 | 85.7 |
| 420-429 | 18 | 425 | 950 | 15 | 423 | 940 | - | - | - | 33 | 424 | 3.0 | 945 | 87.8 |
| 430-439 | 17 | 435 | 1029 | 13 | 434 | 1008 | - | - | - | 30 | 434 | 3.2 | 1020 | 102.2 |
| 440-449 | 17 | 444 | 1124 | 12 | 445 | 1025 | - | - | - | 29 | 444 | 3.2 | 1083 | 109.6 |
| 450-459 | 16 | 455 | 1197 | 7 | 453 | 1093 | - | - | - | 23 | 454 | 3.2 | 1165 | 157.0 |
| 460-469 | 20 | 465 | 1243 | 6 | 463 | 1158 | - | - | - | 26 | 464 | 2.9 | 1223 | 148.5 |
| 470-479 | 12 | 474 | 1417 | 3 | 475 | 1333 | rúa | rain . | - | 15 | 474 | 3.0 | 1400 | 103.5 |
| 480-489 | 9 | 484 | 1506 | - | - | - | | - | - | 9 | 484 | 3.4 | 1506 | 133.3 |
| 490-499 | 4 | 497 | 1675 | 1 | 499 | 1550 | - | - | - | 5 | 498 | 1.3 | 1650 | 122.5 |
| 500-509 | 1 | 509 | 1800 | - | - | - | - | - | | 1 | 509 | | 1800 | - |
| 510-519 | - | - | - | 1 | 510 | 1550 | - | - | - | 1 | 510 | - | 1550 | - |
| 520-529 | 1 | 528 | 2600 | - | - | - | - | - | - ciae | 1 | 528 | | 2600 | - |
| 540-549 | 1 | 540 | 2050 | - | | | - | - | - | 1 | 540 | - | 2050 | - |
| 570-579 | - | - | - | 1 | 570 | 2650 | - | - | - | 1 | 570 | - | 2650 | - |
| TOTAL | 210 | | | 210 | | | - | | | 420 | | | | |
| MEAN | 210 | 430 | 1037 | 210 | 410 | 877 | - | w | - | 420 | 420 | 33.3 | 957 | 26 |

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WINTER SPRING FALL MEAN MEAN MEAN MEAN TOTAL MEAN MEAN FORK DRESSED LENGTH FORK DR. FORK DR. FORK DR. MEAN SD. WEIGHT(g) INTERVAL LEN. WT. LEN. WT. LEN. WT. (mm) NO. (mm) (9) NO. (mm) (0) NO. (mm) (9) NO. MEAN SD. 0.0 330-339 335 335 0.7 450 2 450 2 350-359 3 353 600 3 353 4.2 600 50.0 360-369 7 664 365 3.6 664 85.2 365 370-379 17 374 712 17 374 3.1 712 62.6 782 380-389 22 385 782 22 385 2.6 74.9 395 825 88.1 395 20 3.0 390-399 20 825 37 37 405 859 72.5 400-409 405 859 2.9 414 3.0 910 410-419 26 414 910 26 76.2 420-429 18 424 972 18 424 3.2 972 86.1 430-439 18 434 1033 18 434 3.5 1033 128.3 440-449 444 1139 9 444 3.2 1139 105.4 453 8 1206 126.6 450-459 453 1206 2.4 462 1183 81.6 460-469 462 1183 6 2.9 47B 1250 70.7 470-479 478 1250 2 0.7 490-499 2 493 1550 2 493 3.5 1550 70.7 523 2250 520-529 523 2250 198 TOTAL 198 MEAN 409 907 409 29.3 907 208.6

Table 43. Length composition of commercial whitefish for each seasonal period from area III, 1988/89.

WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL FORK LENGTH FORK DR. FORK DR. FORK DR. DRESSED INTERVAL WT. LENGTH(mm) LEN. LEN. WT. LEN. WT. WEIGHT (g) MEAN (mm) NO. (mm) (9) NO. (mm) (0) NO. (mm) (9) NO. SD. MEAN SD. 320-329 330-339 340-349 3.8 40.8 350-359 2.8 51.5 360-369 55.6 2.8 370-379 55.6 2.5 380-389 67.1 3.0 390-399 69.4 2.9 400-409 3.0 66.1 410-419 76.7 2.6 2.6 420-429 71.6 430-439 2.7 89.9

13 443

2 462

5 476

2 495

405 27.1

2.5

2.7

3.6

2.3

0.0

94.6

136.9

136.6

140.2

388.9

878 197.1

Table 44. Length composition of commercial whitefish for each seasonal period from area IV. 1988/89.

440-449

450-459

460-469

470-479

480-489

490-499

510-519

550-559

560-569

TOTAL

MEAN

5 454

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Table 45. Length composition of commercial whitefish for each seasonal period from area V, 1988/89.

| | | WINTE | | | SPRIN | | _ | FALL | | | | | | |
|---------|-----|--------------|------------|-----|-------|--------------------|-----|------|-------------|-----|------|------|------|-------|
| LENGTH | | MEAN FORK | DR. WT. | | FORK | MEAN DR. WT. | | FORK | MEAN DR. | | | TOTA | DRE | SSED |
| (mm) | NO. | | (9) | NO. | LEN. | (9) | NO. | LEN. | WT. (g) | NO. | MEAN | SD. | MEAN | SD. |
| 330-339 | - | - | - | - | - | - | 1 | 330 | 400 | 1 | 330 | - | 400 | - |
| 340-349 | - | - | - | | - | | 2 | 343 | 425 | 2 | 343 | 3.5 | 425 | 106.1 |
| 350-359 | - | - | - | | - | - | 1 | 358 | 500 | 1 | 358 | - | 500 | - |
| 360-369 | - | - | ~ | - | - | - | 1 | 364 | 700 | 1 | 364 | 40 | 700 | - |
| 370-379 | _ | - | - | _ | - | - | 1 | 377 | 600 | 1 | 377 | - | 600 | - |
| 380-389 | - | - | - | - | - | - | 6 | 385 | 725 | 6 | 385 | 2.5 | 725 | 103.7 |
| 390-399 | _ | - | - | - | _ | - | 12 | 395 | 733 | 12 | 395 | 3.4 | 733 | 65.1 |
| 100-409 | - | - | - | - | - | - | 36 | 405 | 842 | 36 | 405 | 2.8 | 842 | 90.6 |
| 10-419 | - | - | - | - | - | - | 22 | 414 | 873 | 22 | 414 | 2.7 | 873 | 78.3 |
| 120-429 | - | - | - | - | - | - | 39 | 424 | 933 | 39 | 424 | 3.1 | 933 | 75.5 |
| 130-439 | | - | - | - | - | - | 25 | 434 | 996 | 25 | 434 | 2.9 | 996 | 97.8 |
| 440-449 | - | - | - | _ | _ | - | 21 | 445 | 1090 | 21 | 445 | 2.6 | 1090 | 117.9 |
| 450-459 | | - | - | 400 | - | - | 21 | 453 | 1093 | 21 | 453 | 2.6 | 1093 | 97.8 |
| 60-469 | - | - | - | | ~ | - | 6 | 464 | 1217 | 6 | 464 | 2.0 | 1217 | 136.6 |
| 170-479 | - | - | - | - | - | - | 3 | 472 | 1283 | 3 | 472 | 2.1 | 1283 | 104.1 |
| 80-489 | - | - | - | - | - | - | 4 | 483 | 1200 | 4 | 483 | 2.4 | 1200 | 70.7 |
| 190-499 | - | - | - | - | - | - | 1 | 495 | 1400 | 1 | 495 | - | 1400 | - |
| 500-509 | - | - | - | 40 | - | - | 3 | 505 | 1600 | 3 | 505 | 4.5 | 1600 | 300.0 |
| 510-519 | - | - | - | - | - | 40 | 1 | 515 | 1650 | 1 | 515 | - | 1650 | - |
| 520-529 | - | - | - | - | - | - | 1 | 528 | 1850 | 1 | 528 | - | 1850 | - |
| 60-569 | - | - | - | - | - | - | 1 | 568 | 2100 | 1 | 568 | - | 2100 | - |
| 580-589 | - | - | - | - | - | ~ | 3 | 584 | 2700 | 1 | 584 | - | 2700 | - |
| TOTAL | - | | | | | | 209 | | | 209 | | | | |
| MEAN | | - | - | | - | - | | 428 | 973 | | 428 | 32.1 | 973 | 253.6 |

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Table 46. Weight composition by market weight intervals for lake whitefish from commercial plant samples. Great Slave Lake, 1989/90.

| MARKET WEIGHT | | | | | | | AREA | 111 | AREA | IV | AREA | V | T01 | TAL |
|--|-----|----|-----|----|-----|----|------|-----|------|----|------|----|------|-----|
| INTERVAL (DRESSED) | NO. | % | NO. | % | NO. | % | | * | NO. | × | NO. | × | NO. | * |
| O MARKET | - | - | - | - | - | - | 1 | - | 1 | - | | - | 2 | - |
| (< 0.45 kg) | 22 | 5 | 27 | 6 | 37 | 9 | 49 | 12 | 54 | 13 | 17 | 4 | 206 | 8 |
| (0.45-0.69 kg) MEDIUM (0.70-1.39 kg) | 371 | 89 | 285 | 69 | 351 | 84 | 358 | 86 | 356 | 86 | 395 | 95 | 2119 | 85 |
| ARGE (1.40-1.80 kg) | 21 | 5 | 81 | 19 | 16 | 4 | 8 | 2 | 5 | 1 | 4 | • | 135 | 5 |
| JUMBO (> 1.80 kg) | 4 | - | 21 | 5 | 14 | 3 | 1 | - | • | - | - | - | 40 | 2 |
| TOTAL | 418 | | 417 | | 418 | | 417 | - | 416 | | 416 | | 2502 | |

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Table 47. Age composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1989/90.

| AGE | | | FORK LE | NGTH(mm) | | WEIGHT (g) |
|---------------|------|------|---------|----------|------|------------|
| (yr) | NO. | * | MEAN | SD. | MEAN | SD. |
| 6 | 8 | 0.6 | 384 | 27.2 | 713 | 131.5 |
| 6 | 41 | 3.1 | . 383 | 25.2 | 744 | 175.3 |
| 8 | 54 | 4.1 | 395 | 28.1 | 793 | 200.1 |
| 8 | 174 | 13.1 | 403 | 23.8 | 823 | 15B.7 |
| 10 | 368 | 27.8 | 411 | 24.2 | 889 | 176.4 |
| 11 | 306 | 23.1 | 415 | 26.1 | 914 | 187.2 |
| 12 | 224 | 16.9 | 426 | 29.5 | 997 | 232.0 |
| 13 | 83 | 6.3 | 441 | 30.9 | 1139 | 310.2 |
| 14 | 35 | 2.6 | 453 | 39.3 | 1215 | 359.9 |
| 15 | 19 | 1.4 | 490 | 48.3 | 1638 | 525.1 |
| 16 | 7 | 0.5 | 500 | 64.5 | 1677 | 699.5 |
| 17 | 4 | 0.3 | 545 | 40.2 | 2078 | 609.2 |
| 19 | 1 | - | 565 | - | 2180 | - |
| TOTAL | 1324 | | | | | |
| MEAN | | | 417 | 33.3 | 939 | 269.9 |
| MEAN AGE 10.7 | | | | | | |

WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL FORK DR. FORK DR. FORK DR. FORK DRESSED LENGTH(mm) AGE LEN. WT. LEN. WT. LEN. WT. WEIGHT(q) (yr) NO. (mm) (g) 10. (mm) (g) NO. (mm) (p) NO. MEAN SD. MEAN SD. 2 360 12.0 63.6 23.3 159.0 34.4 256.9 32.3 247.8 31 420 25.7 189.5 25.7 230.8 33.7 315.4 30.6 288.0 28.5 332.8 12.9 235.7 55.1 692.2 19.3 38.8 TOTAL MEAN 447 1202 45.4 378.9 MEAN AGE 10.8 1.2 11.0

Table 48. Age composition of commercial whitefish for each seasonal period from area IW. 1989/90.

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Table 49. Age composition of commercial whitefish for each seasonal period from area IE, 1989/90.

| | | WINTE | R | | SPRIN | G | | FALL | | | | | | |
|-------------|------|------------------------------|---------------------------|------|------------------------------|---------------------------|-----|------------------------------|---------------------------|------|----------------------|-------|---------------|----------------------|
| AGE (yr) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | FOR LENGT MEAN | H(mm) | WEIGH MEAN | SSED HT(g) SD. |
| | | | | | 404 | 1005 | _ | - | - | 1 | 424 | - | 1065 | - |
| 7 | - | - | _ | 1 | 424 | 1065 | | _ | _ | 3 | 378 | 14.6 | 703 | 170.1 |
| 8 | 1 | 388 | 710 | 5 | 373 | 700 | - | | | 29 | 401 | 26.6 | 822 | 171.8 |
| 9 | 9 | 388 | 734 | 20 | 407 | 862 | _ | - | - | | | 20.0 | 880 | 164.9 |
| 10 | 40 | 400 | 790 | 43 | 417 | 964 | - | _ | - | 83 | 409 | | 916 | 138.3 |
| 11 | 27 | 412 | 848 | 17 | 429 | 1025 | - | - | - | 44 | 419 | 18.4 | | |
| 12 | 31 | 422 | 931 | 13 | 443 | 1043 | - | - | - | 44 | 428 | 26.1 | 964 | 187.6 |
| 13 | 5 | 426 | 936 | 7 | 464 | 1324 | - | - | - | 12 | 448 | 25.8 | 1163 | 237.3 |
| | - | 720 | - | 3 | 459 | 1177 | - | - | - | 3 | 459 | 16.1 | 1177 | 183.2 |
| 14 15 | - | - | - | 1 | 535 | 2175 | • | - | - | 1 | 535 | - | 2175 | • |
| TOTAL | 113 | | | 107 | | | | | | 220 | | | | |
| | 113 | 409 | 844 | .07 | 425 | 1001 | | - | - | | 417 | 26.9 | 920 | 205.6 |
| MEAN AGE | 10.8 | | 044 | 10.5 | | .001 | - | | | 10.7 | | | | |

Table 50. Age composition of commercial whitefish for each seasonal period from area II, 1989/90.

| | | WINTE | R | | SPRIN | | | FALL | | | | 70741 | | |
|-------------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|----------------------|--------------------|-----|------|------------|-------|---------------|
| | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | FOR | K H(mm) | WEIGH | SSED HT(g) |
| AGE (yr) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| | 2 | 385 | 753 | - | | - | _ | | - | 2 | 385 | 35.4 | 753 | 208. |
| 6 | 22 | 389 | 773 | 2 | 393 | 800 | - | - | - | 24 | 389 | 23.0 | 775 | 172.8 |
| , | 16 | 405 | 884 | 5 | 388 | 783 | - | - | | 21 | 401 | 25.7 | 860 | 191. |
| 0 | 11 | 415 | 909 | 22 | 403 | 806 | - | - | | 33 | 407 | 20.0 | 840 | 127. |
| 9 | 26 | 422 | 958 | 47 | 412 | 855 | _ | - | - | 73 | 415 | 27.3 | 892 | 219.8 |
| 10 | 18 | 426 | 999 | 26 | 420 | 918 | | - | | 44 | 422 | 29.1 | 951 | 253.4 |
| 11 | | 444 | 1124 | 7 | 420 | 936 | _ | - | - | 18 | 434 | 37.4 | 1051 | 354.4 |
| 12 | 11 | | 1659 | 5 | 435 | 1135 | - | | | 9 | 455 | 37.7 | 1368 | 553.5 |
| 13 | 4 | 481 | 2295 | 9 | 433 | 1133 | | _ | | 2 | 546 | 53.0 | 2295 | 212.1 |
| 15 | 2 | 546 | | _ | _ | - | | - | | 1 | 560 | | 2340 | 400 |
| 16 17 | 1 | 560 600 | 2340 2990 | | - | - | - | - | - | 1 | 600 | | 2990 | - |
| TOTAL | 114 | | | 114 | | | | | | 228 | | | | |
| MEAN AGE | 9. | 422 | 1004 | 10. | 412 | 873 | | - | - | 9.9 | 417 | 36.6 | 938 | 337.1 |

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Table 51. Age composition of commercial whitefish for each seasonal period from area III, 1989/90.

| | | WINTE | R | | SPRIN | IG | | FALL | | | | | | |
|----------|------|----------------------|--------------------|------|----------------------|--------------------|------|----------------------|--------------------|------|------|------|------|---------------|
| AGE | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | | MEAN FORK LEN. | MEAN DR. WT. | - | FOR | | DRE: | SSED HT(g) |
| (yr) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (g) | ND. | MEAN | SD. | MEAN | SD. |
| 7 | _ | _ | - | 1 | 324 | 465 | 1 | 366 | 570 | 2 | 345 | 29.7 | 518 | 74.2 |
| В | - | - | - | 4 | 366 | 600 | 3 | 383 | 652 | 7 | 373 | 23.3 | 622 | 134.9 |
| 9 | - | - | - | 19 | 385 | 747 | 31 | 411 | 810 | 50 | 401 | 23.2 | 787 | 148.1 |
| 0 | - | - | - | 33 | 406 | 852 | 50 | 422 | 925 | 83 | 415 | 23.1 | 896 | 160.1 |
| 11 | - | - | | 29 | 412 | 882 | 23 | 425 | 927 | 52 | 418 | 22.5 | 902 | 155.2 |
| 12 | day. | - | - | 13 | 421 | 915 | 2 | 433 | 1080 | 15 | 422 | 20.3 | 937 | 167.6 |
| 13 | - | - | - | 6 | 429 | 972 | 2 | 457 | 1275 | 8 | 436 | 22.8 | 1048 | 154.8 |
| 4 | - | _ | - | 2 | 443 | 1080 | - | - | - | 2 | 443 | 16.3 | 1080 | 198.0 |
| 15 | - | on. | - | 2 | 491 | 1720 | 1 | 463 | 1580 | 3 | 482 | 60.2 | 1673 | 794.1 |
| 16 | - | - | - | 1 | 451 | 1075 | - | - | - | 1 | 451 | • | 1075 | - |
| TOTAL | _ | | | 110 | | | 113 | | | 223 | , | | | |
| MEAN | | - | - | | 407 | 865 | | 419 | 898 | | 413 | 27.6 | 882 | 210.8 |
| MEAN AGE | - | | | 10.6 | | _ 3 = | 10.0 | | | 10.3 | | | | |

Table 52. Age composition of commercial whitefish for each seasonal period from area IV, 1989/90.

| | | WINTE | R | | SPRIN | G | | FALL | | | | | | |
|-----------|------|------------------------------|---------------------------|------|------------------------------|---------------------------|-----|------------------------------|---------------------------|------|----------------------|--------------|---------------|----------------------|
| GE yr) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (9) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | MEAN FORK LEN. (mm) | MEAN DR. WT. (g) | NO. | FOR LENGT MEAN | H(mm) SD. | WEIGH MEAN | SSED HT(g) SD. |
| 8 | 1 | 348 | 485 | - | - | | | _ | | 1 | 348 | - | 485 | - |
| 9 | 7 | 372 | 642 | 2 | 389 | 838 | 000 | - | - | 9 | 376 | 15.7 | 686 | 113.0 |
| 0 | 12 | 367 | 729 | 23 | 389 | 839 | - | - | - | 35 | 389 | 17.5 | 801 | 119.5 |
| 1 | 44 | 396 | 795 | 32 | 392 | 875 | | - | - | 76 | 394 | 18.5 | 829 | 122.0 |
| 2 | 27 | 410 | 879 | 38 | 408 | 966 | | - | - | 65 | 409 | 20.7 | 930 | 135.9 |
| 3 | 7 | 423 | 919 | 10 | 418 | 1063 | - | | - | 17 | 420 | 19.0 | 1004 | 155.7 |
| 4 | 5 | 424 | 978 | 4 | 441 | 1219 | - | - | - | 9 | 432 | 29.4 | 1085 | 246.3 |
| 5 | 1 | 434 | 1170 | 1 | 424 | 1000 | - | - | - | 2 | 429 | 7.1 | 1085 | 120.2 |
| 6 | 1 | 415 | 910 | - | - | - | - | - | | 1 | 415 | - | 910 | - |
| TOTAL | 105 | | | 110 | | | | | | 215 | | | | |
| MEAN | .00 | 400 | 818 | | 402 | 929 | | - | - | | 401 | 23.3 | 875 | 161.2 |
| MEAN AGE | 11.3 | | | 11.4 | | | - | | | 11.4 | | | | |

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WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL FORK DRESSED FORK DR. FORK DR. FORK DR. AGE LEN. WT. LEN. WT. LEN. WT. LENGTH(mm) WEIGHT(g) (yr) NO. (mm) NO. (mm) MEAN (a) (9) NO. (mm) (9) NO. SD. MEAN 6 360 575 3 407 783 396 26.1 731 137.6 7 372 660 380 720 2 376 5.7 690 42.4 B 7 411 869 387 719 11 402 22.7 814 117.6 9 20 404 848 16 407 811 36 405 16.5 832 96.5 10 15 414 896 21 413 865 36 414 19.9 878 131.5 11 24 412 864 46 22 412 **B77** 412 17.2 870 104.2 12 24 421 950 19 419 924 43 420 17.8 938 126.2 13 12 433 1010 9 420 926 21 427 19.3 974 161.6 14 401 760 8 422 934 9 419 16.2 915 101.0 15 3 454 1153 425 4 447 35.4 965 1106 245.5 16 1 463 1265 463 1265 TOTAL 109 104 213 MEAN 907 413 872 414 20.8 890 138.1 MEAN AGE 10.8 10.8 10.8

Table 53. Age composition of commercial whitefish for each seasonal period from area V, 1989/90.

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Table 54. Length composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1989/90.

| LENGTH INTERVAL | | | EODK : F | NCTH() | DREEFFE | WETCHT (|
|--------------------|------------------|------------|------------|--------|--------------|----------------|
| (mm) | NO. | * | MEAN | SD. | MEAN | WEIGHT (g) |
| 310-319 | 2 | - | 314 | 2. | 405 | |
| 320-329 | 2 2 5 | | 326 | 2.1 | 425 | 70.7 |
| 330-339 | £ | 0.2 | 335 | 2.1 | 438 497 | 38.9 |
| 340-349 | 16 | 0.6 | 344 | 3.0 | | 20.2 |
| 350-359 | 22 | 0.9 | 353 | | 510 | 57.9 |
| 360-369 | 53 | 2.1 | 364 | 3.0 | 584 | 66.8 |
| 370-379 | 116 | | 374 | 2.9 | 629 | 71.9 |
| 380-389 | 189 | 4.6 7.6 | | 2.9 | 688 | 70.5 |
| 390-399 | 295 | 11.8 | 384 394 | 3.1 | 752 | 73.7 |
| 400-409 | 405 | 16.2 | | 2.9 | 786 | 73.5 |
| 410-419 | 330 | 13.2 | 404 | 2.9 | 842 | 72.6 |
| 420-429 | 333 | 13.3 | 414 | 2.7 | 892 | 76.7 |
| 430-439 | 237 | 9.5 | 423 433 | 2.8 | 950 | 83.9 |
| 440-449 | 143 | 5.7 | 444 | 2.7 | 1003 | 96.5 |
| 450-459 | 90 | 3.6 | 453 | 2.7 | 1083 | 114.0 |
| 460-469 | 67 | 2.7 | 464 | | 1156 1270 | 118.3 |
| 470-479 | 55 | 2.2 | 473 | 3.3 | | 120.3 |
| 480-489 | 27 | 1.1 | 484 | 3.2 | 1347 1469 | 121.4 |
| 490-499 | 35 | 1.4 | 495 | 3.0 | | 162.2 |
| 500-509 | 19 | 0.8 | 504 | 3.0 | 1498 1653 | 135.7 192.4 |
| 510-519 | 24 | 1.0 | 514 | 3.5 | 1736 | 238.5 |
| 520-529 | 14 | 0.6 | 525 | 3.2 | 1979 | |
| 530-539 | | 0.2 | 533 | 2.3 | 2069 | 147.0 |
| 540-549 | 5 | 0.2 | 545 | 3.5 | 2112 | 470.3 |
| 550-559 | 5 6 3 4 | 0.1 | 556 | 3.2 | 2087 | 274.7 |
| 560-569 | , A | 0.2 | 565 | 3.8 | 2434 | 300.8 |
| 570-579 | ī | 0.2 | 577 | 3.6 | 2560 | 300.8 |
| 580-589 | 2 | - | 586 | 3.5 | 2723 | 392.4 |
| 590-599 | ī | - | 598 | 3.5 | 2840 | 392.4 |
| 600-609 | i | - | 600 | - | 2990 | - |
| | | | | | 2330 | |
| TOTAL WEAN | 2502 | | 418 | 34.6 | 945 | 274.2 |

Table 55. Length composition of commercial whitefish for each seasonal period from area IW, 1989/90.

| | _ | WINTE | | - | SPRIM | | - | FALL | | | | | | |
|------------------|-----|-------|------|-----|-------|------|-----|------|------|-----|------|------|------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | - | | TOTA | | SSED |
| LENGTH | | FORK | DR. | | FORK | DR. | | FORK | DR. | | | RK | | |
| INTERVAL (mm) | *** | LEN. | WT. | NO. | LEN. | WT. | NO. | LEN. | WT. | NO. | MEAN | SD. | MEAN | SD. |
| (mm) | NO. | (mm) | (9) | NU. | (mm) | (9) | NU. | (mm) | (9) | NU. | MEAN | 3U. | MEAN | 30. |
| 330-339 | - | - | - | 1 | 338 | 505 | - | - | - | 1 | 338 | • | 505 | - |
| 340-349 | 1 | 344 | 455 | 1 | 345 | 460 | - | - | - | 2 | 345 | 0.7 | 458 | 3.5 |
| 350-359 | 1 | 350 | 630 | 4 | 354 | 555 | - | - | - | 5 | 353 | 3.3 | 570 | 53.3 |
| 360-369 | 7 | 363 | 631 | 3 | 367 | 695 | - | - | - | 10 | 364 | 2.9 | 651 | 63.6 |
| 370-379 | 9 | 373 | 672 | 3 | 375 | 675 | - | - | - | 12 | 374 | 2.3 | 673 | 54.5 |
| 380-389 | 11 | 383 | 705 | 8 | 383 | 741 | - | _ | - | 19 | 383 | 2.8 | 720 | 64.9 |
| 390-399 | 16 | 394 | 776 | 9 | 395 | 830 | - | - | - | 25 | 395 | 3.3 | 795 | 63.2 |
| 400-409 | 16 | 403 | 830 | 12 | 404 | 831 | - | - | - | 28 | 403 | 2.5 | 831 | 51.2 |
| 410-419 | 21 | 414 | 870 | 13 | 415 | 933 | - | - | - | 34 | 414 | 2.8 | 894 | 70.2 |
| 420-429 | 29 | 423 | 960 | 18 | 423 | 977 | - | - | • | 47 | 423 | 2.9 | 966 | 82.5 |
| 430-439 | 20 | 434 | 1034 | 15 | 435 | 1080 | - | - | - | 35 | 434 | 3.2 | 1054 | 96.6 |
| 440-449 | 14 | 444 | 1090 | 14 | 444 | 1131 | - | - | - | 28 | 444 | 2.9 | 1111 | 113.7 |
| 450-459 | 12 | 453 | 1143 | 9 | 454 | 1198 | - | - | - | 21 | 454 | 2.7 | 1166 | 109.6 |
| 460-469 | 10 | 465 | 1294 | 24 | 464 | 1283 | - | - | - | 34 | 464 | 3.5 | 1286 | 102.7 |
| 470-479 | 12 | 472 | 1330 | 18 | 474 | 1383 | - | - | | 30 | 473 | 2.6 | 1362 | 91.1 |
| 480-489 | 5 | 483 | 1454 | 8 | 484 | 1483 | - | - | - | 13 | 483 | 2.4 | 1472 | 179.7 |
| 490-499 | 5 | 496 | 1483 | 21 | 495 | 1483 | - | - | - | 26 | 495 | 3.1 | 1483 | 99.2 |
| 500-509 | 5 | 504 | 1630 | 7 | 505 | 1684 | - | - | - | 12 | 505 | 2.4 | 1662 | 157.9 |
| 510-519 | 4 | 515 | 1863 | 12 | 515 | 1658 | - | - | - | 16 | 515 | 3.8 | 1709 | 197.8 |
| 520-529 | 4 | 523 | 1955 | 4 | 525 | 1904 | - | - | | 8 | 524 | 2.9 | 1929 | 153.7 |
| 530-539 | 2 | 533 | 2020 | 1 | 532 | 1955 | • | - | - | 3 | 532 | 2.5 | 1998 | 40.4 |
| 540-549 | 1 | 543 | 2245 | 2 | 545 | 1678 | - | - | - | 3 | 544 | 3.2 | 1867 | 331.8 |
| 550-559 | 2 | 558 | 2240 | - | - | - | - | - | | 2 | 558 | 0.7 | 2240 | 99.0 |
| 60-569 | 1 | 568 | 2870 | 1 | 565 | 2180 | - | - | - | 2 | 567 | 2.1 | 2525 | 487.9 |
| 590-599 | 1 | 598 | 2840 | - | - | - | - | - | - | 1 | 598 | - | 2840 | - |
| OTAL | 209 | | | 208 | | | - | | | 417 | | | | |
| MEAN | | 434 | 1073 | 300 | 450 | 1196 | | - | - | | 442 | 45.7 | 1134 | 374.1 |

Table 56. Length composition of commercial whitefish for each seasonal period from area IE, 1989/90.

| | | WINTE | | | SPRIN | | | FALL | | | | 7074 | | |
|----------|-----|-------|-------------|-----|-------|-------------|-----|------|-------------|-----|------|-------|------|-------|
| PHOTH | | MEAN | MEAN DR. | | MEAN | MEAN DR. | | MEAN | MEAN DR. | | EC | TOTA | | SSED |
| LENGTH | | FORK | | | | | | | WT. | | | H(mm) | | HT(a) |
| INTERVAL | | LEN. | WT. | *** | LEN. | WT. | *10 | LEN. | | NO. | MEAN | SD. | MEAN | SD. |
| (mm) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SU. | MEAN | 30. |
| 330-339 | 1 | 333 | 480 | - | - | - | | - | - | 1 | 333 | - | 480 | - |
| 340-349 | 2 | 343 | 483 | - | - | - | - | - | - | 2 | 343 | 1.4 | 483 | 3.5 |
| 360-369 | | - | - | 2 | 361 | 585 | - | - | - | 2 | 361 | 0.0 | 585 | 77.8 |
| 370-379 | 10 | 374 | 638 | 4 | 373 | 678 | - | - | - | 14 | 374 | 3.0 | 649 | 56.9 |
| 380-389 | 21 | 385 | 739 | 10 | 386 | 783 | - | - | - | 31 | 385 | 3.2 | 753 | 75.7 |
| 390-399 | 39 | 395 | 768 | 16 | 396 | 793 | - | - | - | 55 | 395 | 2.8 | 775 | 58.8 |
| 400-409 | 43 | 405 | 823 | 25 | 405 | 881 | - | - | - | 68 | 405 | 3.0 | 844 | 68.0 |
| 410-419 | 29 | 413 | 876 | 36 | 415 | 916 | - | - | - | 65 | 414 | 2.9 | 898 | 56.2 |
| 420-429 | 26 | 425 | 926 | 33 | 425 | 1012 | - | - | - | 59 | 425 | 2.9 | 974 | 87.1 |
| 430-439 | 22 | 432 | 984 | 21 | 433 | 1036 | - | - | - | 43 | 433 | 2.4 | 1010 | 80.4 |
| 440-449 | 10 | 443 | 1006 | 14 | 444 | 1101 | - | - | - | 24 | 444 | 3.2 | 1062 | 97.8 |
| 450-459 | 2 | 458 | 1218 | 14 | 454 | 1158 | - | - | - | 16 | 454 | 4.0 | 1166 | 108.5 |
| 460-469 | 1 | 462 | 1375 | 9 | 464 | 1226 | - | - | - | 10 | 464 | 2.6 | 1241 | 91.2 |
| 470-479 | 1 | 478 | 1535 | 4 | 473 | 1396 | - | - | - | 5 | 474 | 4.0 | 1424 | 97.4 |
| 480-489 | 1 | 487 | 1385 | 6 | 486 | 1400 | - | - | ~ | 7 | 486 | 3.3 | 1398 | 68.3 |
| 490-499 | _ | - | - | 5 | 494 | 1502 | - | - | - | 5 | 494 | 3.3 | 1502 | 284.4 |
| 500-509 | - | - | - | 4 | 504 | 1534 | - | - | - | 4 | 504 | 4.3 | 1534 | 160.0 |
| 510-519 | 1 | 513 | 1910 | 2 | 514 | 1573 | - | - | - | 3 | 513 | 2.5 | 1685 | 195.6 |
| 520-529 | - | - | - | 2 | 529 | 1953 | - | - | - | 2 | 529 | 0.0 | 1953 | 46.0 |
| 530-539 | - | - | - | 1 | 535 | 2175 | - | - | - | 1 | 535 | - | 2175 | - |
| 540-549 | - | - | - | 1 | 540 | 1785 | - | - | - | 1 | 540 | - | 1785 | - |
| TOTAL | 209 | | | 209 | | | _ | | | 418 | | | | |
| MEAN | | 409 | 854 | 300 | 430 | 1033 | | - | - | | 419 | 30.5 | 943 | 229.5 |

Table 57. Length composition of commercial whitefish for each seasonal period from area II, 1989/90.

| | | WINTE | | | SPRIM | | | FALL | | | | | | |
|----------|-----|-------|------|-----|-------|------|-----|------|------|-----|------|--------|------|--------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTA | L | |
| LENGTH | | FORK | DR. | | FORK | DR. | | FORK | DR. | | | DRK | DRI | ESSED |
| INTERVAL | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | TH(mm) | WEIG | GHT(g) |
| (mm) | NO. | (mm) | (0) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 330-339 | - | - | - | , | 335 | 500 | - | | | 1 | 335 | | 500 | |
| 340-349 | 3 | 342 | 513 | 2 | 344 | 503 | _ | - | - | 5 | 343 | 3.3 | 509 | 37.3 |
| 350-359 | 3 | 353 | 532 | 2 | 355 | 608 | _ | _ | - | 5 | 354 | 3.7 | 562 | 59.5 |
| 360-369 | 5 | 364 | 604 | 4 | 366 | 663 | | - | - | 9 | 365 | 3.5 | 630 | 59.6 |
| 370-379 | 5 | 374 | 630 | 12 | 374 | 689 | | - | - | 17 | 374 | 3.6 | 672 | 60.1 |
| 380-389 | 16 | 384 | 736 | 13 | 385 | 758 | - | - | - | 29 | 385 | 3.0 | 746 | 58.6 |
| 390-399 | 28 | 394 | 783 | 19 | 393 | 779 | - | - | - | 47 | 394 | 2.8 | 781 | 58.0 |
| 400-409 | 41 | 403 | 829 | 43 | 404 | 823 | - | - | - | 84 | 404 | 2.8 | 826 | 65.1 |
| 410-419 | 30 | 413 | 879 | 30 | 414 | 893 | _ | - | - | 60 | 413 | 2.5 | 886 | 68.5 |
| 420-429 | 18 | 423 | 917 | 37 | 423 | 910 | - | - | - | 55 | 423 | 2.6 | 913 | 65.7 |
| 430-439 | 12 | 434 | 1043 | 18 | 432 | 971 | - | - | - | 30 | 433 | 2.5 | 1000 | 97.7 |
| 440-449 | 9 | 444 | 1109 | 19 | 443 | 1061 | - | - | - | 28 | 443 | 2.3 | 1077 | 116.6 |
| 450-459 | 7 | 452 | 1125 | 4 | 453 | 1264 | - | - | - | 11 | 452 | 2.5 | 1175 | 109.9 |
| 460-469 | 5 | 466 | 1402 | 3 | 465 | 1152 | - | - | - | 8 | 466 | 3.3 | 1308 | 151.1 |
| 470-479 | 2 | 470 | 1305 | 2 | 471 | 1370 | _ | - | - | 4 | 471 | 1.0 | 1338 | 42.7 |
| 480-489 | 2 | 481 | 1585 | - | - | - | _ | - | - | 2 | 481 | 1.4 | 1585 | 84.9 |
| 490-499 | 2 | 492 | 1560 | - | - | - | - | - | - | 2 | 492 | 0.0 | 1560 | 35.4 |
| 500-509 | 3 | 503 | 1777 | _ | - | - | - | - | - | 3 | 503 | 4.2 | 1777 | 325.1 |
| 510-519 | 4 | 512 | 1894 | 1 | 510 | 1680 | - | - | - | 5 | 512 | 1.5 | 1851 | 374.0 |
| 520-529 | 4 | 525 | 2091 | - | - | - | _ | _ | - | Ā | 525 | 3.2 | 2091 | 118.2 |
| 530-539 | 1 | 535 | 2175 | - | - | - | - | - | - | 1 | 535 | - | 2175 | |
| 540-549 | 1 | 545 | 2775 | | - | - | - | - | - | i | 545 | - | 2775 | - |
| 550-559 | 1 | 552 | 1780 | - | _ | _ | - | - | - | i | 552 | - | 1780 | - |
| 560-569 | 2 | 564 | 2343 | - | - | - | - | - | - | 2 | 564 | 5.7 | 2343 | 3.5 |
| 570-579 | 1 | 577 | 2560 | - | - | - | - | - | - | ī | 577 | - | 2560 | |
| 580-589 | 2 | 586 | 2723 | - | - | - | - | - | - | 2 | 586 | 3.5 | 2723 | 392.4 |
| 600-609 | 1 | 600 | 2990 | - | - | - | - | - | - | 1 | 600 | - | 2990 | - |
| TOTAL | 208 | | | 210 | | | - | | | 418 | | | | |
| MEAN | | 422 | 1009 | | 412 | 880 | | - | - | | 417 | 37.9 | 944 | 344.4 |

Table 58. Length composition of commercial whitefish for each seasonal period from area III, 1989/90.

| | | WINTE | | | SPRIM | | | FALL | | | | | | |
|----------|-----|-------|------|-----|-------|------|-----|------|------|------|-------|-------|------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTA | L | |
| LENGTH | | FORK | DR. | | FORK | DR. | | FORK | DR. | | FC | RK | DRE | SSED |
| INTERVAL | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | LENGT | H(mm) | WEIG | HT(g) |
| (mm) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | MEAN | SD. | MEAN | SD. |
| 320-329 | - | - | - | 2 | 326 | 438 | - | - | | 2 | 326 | 2.8 | 438 | 38.9 |
| 350-359 | - | - | - | 2 | 351 | 550 | - | - | - | 2 | 351 | 0.0 | 550 | 91.9 |
| 360-369 | - | - | - | В | 364 | 558 | 2 | 366 | 578 | 10 | 364 | 2.7 | 562 | 26.9 |
| 370-379 | - | _ | - | 15 | 375 | 648 | 5 | 373 | 624 | 20 | 374 | 3.3 | 642 | 50.9 |
| 380-389 | - | - | - | 17 | 384 | 728 | 10 | 385 | 709 | 27 | 385 | 3.4 | 721 | 68.6 |
| 390-399 | - | - | - | 25 | 393 | 750 | 16 | 394 | 720 | 41 | 394 | 3.1 | 738 | 72.9 |
| 400-409 | - | - | - | 41 | 404 | 857 | 22 | 404 | 789 | 63 | 404 | 3.3 | 833 | 86.1 |
| 410-419 | - | - | - | 21 | 414 | 877 | 43 | 414 | 853 | 64 | 414 | 2.7 | 861 | 91.6 |
| 420-429 | _ | - | - | 30 | 424 | 985 | 35 | 423 | 905 | 65 | 424 | 2.7 | 942 | 100.8 |
| 430-439 | - | - | - | 23 | 434 | 962 | 34 | 433 | 973 | 57 | 433 | 2.8 | 968 | 102.9 |
| 440-449 | - | - | - | 11 | 444 | 1150 | 13 | 443 | 1018 | 24 | 443 | 2.6 | 1078 | 108.7 |
| 450-459 | - | - | - | 11 | 453 | 1159 | 14 | 453 | 1099 | 25 | 453 | 2.6 | 1125 | 141.7 |
| 460-469 | _ | - | - | - | - | - | 6 | 463 | 1236 | | 463 | 3.2 | 1236 | 195.8 |
| 470-479 | - | - | - | 1 | 470 | 1460 | 6 | 474 | 1264 | 7 | 473 | 2.9 | 1292 | 215.8 |
| 480-489 | - | - | - | 1 | 489 | 1680 | 2 | 485 | 1578 | 3 | 486 | 3.8 | 1612 | 239.9 |
| 540-549 | - | - | - | 1 | 549 | 2510 | - | - | - | ĭ | 549 | - | 2510 | - |
| TOTAL | - | | | 209 | | | 208 | | | 417 | | | | |
| MEAN | | - | - | 300 | 409 | 878 | 100 | 421 | 906 | 4.,, | 415 | 26.3 | 892 | 206.2 |

Table 59. Length composition of commercial whitefish for each seasonal period from area IV, 1989/90.

| | | WINTE | | | SPRIN | | | FALL | | | | | | |
|----------|-----|-------|------|-----|-------|------|-----|------|------|-----|------|-------|------|-------|
| | | MEAN | MEAN | | MEAN | MEAN | | MEAN | MEAN | | | TOTAL | | **** |
| LENGTH | | FORK | DR. | | FORK | DR. | | FORK | DR. | | | RK | | SSED |
| INTERVAL | | LEN. | WT. | | LEN. | WT. | | LEN. | WT. | | | H(mm) | | HT(g) |
| (mm) | NO. | (mm) | (9) | NO. | (mm) | (9) | NO. | (mm) | (g) | NO. | MEAN | SD. | MEAN | SD. |
| 310-319 | , | 312 | 375 | 1 | 315 | 475 | - | - | - | 2 | 314 | 2.1 | 425 | 70.7 |
| 330-339 | 2 | 334 | 500 | _ | - | - | - | _ | - | 2 | 334 | 0.7 | 500 | 35.4 |
| 340-349 | 4 | 344 | 500 | 2 | 348 | 600 | - | - | - | 6 | 345 | 3.3 | 533 | 82.1 |
| 350-359 | 5 | 354 | 557 | 5 | 353 | 660 | - | - | - | 10 | 354 | 2.8 | 609 | 73.0 |
| 360-369 | 11 | 363 | 610 | 8 | 365 | 731 | - | ~ | - | 19 | 364 | 2.8 | 661 | 79.4 |
| 370-379 | 19 | 374 | 672 | 24 | 375 | 772 | - | - | - | 43 | 374 | 2.7 | 728 | 69.6 |
| 380-389 | 29 | 383 | 723 | 30 | 385 | 845 | - | - | - | 59 | 384 | 3.0 | 785 | 79.0 |
| 390-399 | 36 | 394 | 771 | 39 | 393 | 881 | - | - | - | 75 | 394 | 2.9 | 828 | 83.4 |
| 400-409 | 33 | 404 | 830 | 38 | 404 | 939 | - | - | - | 71 | 404 | 2.9 | 889 | 73.7 |
| 410-419 | 22 | 415 | 910 | 25 | 414 | 993 | - | - | - | 47 | 414 | 2.6 | 954 | 73.3 |
| 420-429 | 22 | 423 | 947 | 18 | 423 | 1039 | - | - | - | 40 | 423 | 2.8 | 988 | 80.8 |
| 430-439 | 17 | 434 | 1001 | 4 | 433 | 1100 | _ | _ | - | 21 | 433 | 2.6 | 1020 | 96.2 |
| 440-449 | 7 | 443 | 1149 | 4 | 444 | 1213 | - | - | - | 11 | 443 | 2.7 | 1172 | 119.6 |
| 450-459 | - | - | - | 3 | 451 | 1267 | - | - | - | 3 | 451 | 1.2 | 1267 | 38.2 |
| 460-469 | - | - | - | 1 | 469 | 1150 | - | - | - | 1 | 469 | - | 1150 | - |
| 470-479 | - | - | - | 3 | 472 | 1433 | - | - | - | 3 | 472 | 4.0 | 1433 | 62.9 |
| 480-489 | - | - | - | 1 | 481 | 1325 | - | - | - | 1 | 481 | - | 1325 | - |
| 490-499 | - | - | - | 2 | 494 | 1613 | - | - | - | 2 | 494 | 2.8 | 1613 | 123.7 |
| TOTAL | 208 | | | 208 | | | - | | | 416 | | | | |
| MEAN | | 398 | 806 | | 400 | 920 | | - | - | | 399 | 25.3 | 863 | 170.0 |

WINTER SPRING FALL MEAN MEAN MEAN MEAN MEAN MEAN TOTAL LENGTH FORK DR. FORK DR. FORK DR. FORK DRESSED INTERVAL LEN. WT. LEN. WT. MEAN SD. LEN. WT. WEIGHT(g) (mm) NO. (mm) (9) NO. (mm) NO. (mm) (0) (0) NO. MEAN SD. 340-349 348 535 348 535 360-369 2 364 595 1 365 605 3 364 4.0 598 20.8 370-379 374 716 5 374 692 10 374 2.8 704 70.8 380-389 12 384 741 12 384 740 24 384 2.9 741 59.3 390-399 27 395 784 25 394 763 52 394 2.7 774 59.3 400-409 42 405 834 49 404 824 91 404 2.8 828 62.7 410-419 32 413 884 28 414 864 60 414 2.5 875 65.7 420-429 34 423 944 33 423 925 67 423 2.7 934 61.1 430-439 23 433 999 28 432 993 51 433 2.1 996 87.9 440-449 14 444 1059 14 444 28 1041 444 2.7 1050 113.1 450-459 454 1157 5 453 1119 453 2.2 1143 108.4 460-469 462 1203 464 1280 8 463 2.3 1241 132.9 470-479 473 1278 2 472 1135 6 473 1.2 1230 111.8 480-489 480 1425 480 1425 TOTAL 210 206 416 MEAN 416 906 415 886

415 21.6

896 145.9

Table 60. Length composition of commercial whitefish for each seasonal period from area V, 1989/90.

